KURIAKOSE GREGORIOS COLLEGE PAMPADY

Affiliated to Mahatma Gandhi University, Kottayam

OUTCOME BASED EDUCATION MANUAL

PREFACE:

Outcome-Based Education (OBE) represents a paradigm shift in the field of education, focusing not just on what is taught but, more importantly, on what students are expected to achieve. This innovative approach places a strong emphasis on clearly defined learning outcomes, providing a beacon light for educators and learners alike. Thus, Outcome-Based education emphasizes on a progressive and proactive approach to education, where the focus is not just on the journey but on the destination. By setting clear expectations, fostering relevance, and promoting student-centered learning, OBE prepares students not only for academic success but for the dynamic challenges of the real world. As educators and institutions continue to embrace the principles of Outcome-Based Education, we at Kuriakose Gregorios College Pampady, move towards a future where learning is not just a process but a powerful catalyst for personal and societal transformation.

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Tenets of Outcome Based Education:

The guiding concepts of outcome-based education are accountability, relevance, and clarity. Learning outcomes, which specify the information, abilities, and attitudes that students should gain, are meticulously designed. These results go beyond the classroom and have real-world, practical implications as well, making sure that education is not limited to the classroom and instead equips students for the demands of the workplace.

OBE's student-centered methodology is one of its core principles. OBE places an emphasis on the student's learning experience rather than just teaching methods. This change promotes critical thinking, active participation, and the acquisition of lifelong learning abilities. In addition to content, learning processes and applying information in various settings are also prioritised. The major advantages of defining an outcome based education are:

Crystal clear statement of Objectives: Clearly defined learning outcomes provide a roadmap for both educators and students, ensuring everyone understands the expectations and goals of the educational program.

Assessment and Evaluation: OBE emphasizes continuous assessment and evaluation of student performance based on predefined outcomes. This helps in identifying areas of improvement and tailoring instruction accordingly.

Student-Centered Approach: OBE shifts the focus from teaching to learning. It encourages a student-centered approach, promoting active engagement, critical thinking, and problem-solving skills.

Quality Assurance: OBE provides a framework for quality assurance by setting clear standards and expectations. Institutions can regularly review and update their programs to maintain relevance and effectiveness.

Adaptability: OBE allows for flexibility in teaching methods and assessment strategies, fostering adaptability to different learning styles and preferences.

Global Competitiveness: OBE can enhance the international competitiveness of graduates by ensuring they meet global educational standards and possess skills that are valued in a global context.

Accountability: Clearly defined outcomes make the educational process more transparent. This transparency enhances accountability for both educators and students in achieving the stated objectives.

Scope for continuous Improvement: OBE encourages a culture of continuous improvement. Institutions can use feedback from assessments to refine and enhance their programmes continually.

Increased Employability: Graduates of OBE programmes are more likely to possess the specific skills and knowledge required by employers, increasing their employability and success in the job market.

Enhanced Curriculum Design: OBE prompts educators to carefully design and structure their curricula to achieve specific outcomes. This can lead to more effective and coherent educational programs.

Institutional Vision:

To become a centre of academic excellence by imparting quality education.

Institutional Mission:

To develop the physical, spiritual, intellectual, moral and aesthetic power of the students, so that they can transform themselves into intellectually trained, morally upright, socially committed and spiritually inspired men and women.

Programme Outcome:

Programme outcomes are the learning outcomes at the programme level. These are specific statements that describe the knowledge, skills, attitudes, and behaviors that students are expected to demonstrate upon completion of an academic program or course of study. These learning outcomes are of a broad scope. These outcomes reflect the overall goals and objectives of the programme and are often aligned with the mission and vision of the institution. Programme outcomes serve as a guide for curriculum development, instructional strategies, and assessment methods.

Programme Specific Outcome:

Programme Specific Outcomes (PSOs) are statements of what students should know, be able to do, and possess after successfully finishing a particular course of study or academic programme. PSOs are program-specific, addressing the unique requirements and objectives of a particular academic discipline or field of study. They reflect the specialized knowledge and skills relevant to that programme. Because PSOs are specifically designed to meet the goals and distinctive features of a certain academic programme, they are more concentrated and thorough than overall programme results. The program's specialised nature is reflected in these outcomes, which also provide students a clear idea of what is expected of them in their particular field of study.

Course Outcome:

Course Outcomes (COs) are precise declarations that outline the anticipated learning outcomes for students at the conclusion of a given course or module in an educational programme. These outcomes give students a thorough summary of what they should know, comprehend, and be able to accomplish at the end of the course. The effectiveness of the

teaching and learning process is assessed, instructional design, and assessment procedures are all influenced by the course outcomes. The distinctive content and goals of each course are addressed in the course outcomes, which are targeted and precise. They give an explanation of the attitudes, abilities, and information that students should have after finishing the specific course. In order to evaluate the degree to which the course objectives are fulfilled, course outcomes must to be quantifiable.

OBE Implementation:

A systematic and cooperative approach encompassing curriculum design, instructional techniques, evaluation procedures, and ongoing constructive development is required to implement outcome-based education (OBE). Implementing outcome-based education is a continuous process that calls for cooperation, dedication, and a readiness to adjust in response to constructive criticism and evolving requirements. Stakeholder involvement and constant communication are essential for the effective execution of OBE.

Drafting of PO, PSO and CO:

Formally created in the academic year 2021–2022, the OBE committee drafted the programme outcomes. The OBE committee was constituted with faculty members from each department in the institution. The pertinent programme outcomes of each programme were determined and matched with the program-specific outcomes. The course objectives for each course were then designed and stitched to the programme specific outcomes. The course outcomes are evaluated by the course team members of the respective departments. The duties entrusted with the course team members are:

1. Review of the syllabus
2. Determination of threshold value and CO attainment by direct method
3. CO-PO Mapping
4. Benchmarking
5. Exit survey in scale of 0-3 from indirect method
6. Final consolidation
7. Schedule corrective measures if needed

OBE assessment and attainment:

The term "assessment" refers to one or more institutional processes that find, gather, and arrange data in order to assess the accomplishment of objectives. For attainment evaluation, both direct and indirect methods of assessment are used. Achieving something is the act of attaining a typical outcome for reaching intended objectives. In general, 80% of the weightage is assigned to direct achievement and 20% is assigned to indirect attainment.

Outcome Based Education Committee:

1. Dr. Shyla Abraham (Principal)
2. Lt. Renish Joseph (IQAC Coordinator)
3. Dr. Mini Joseph
4. Dr. Anila Kumary K.S
5. Ms. Preethy Saira Philip
6. Ms.Vinitha Varkey
7. Ms. Namitha George
8. Dr. Anit Elizabeth
9. Mr. Roy Jose

PROGRAMME OUTCOMES

PO Number	P O Statement
PO1	**DISCIPLINARY KNOWLEDGE** Students will develop a comprehensive understanding of the subjects covered in the area of study.
PO2	**PROBLEM SOLVING & CRITICAL THINKING** Will enable the students to formulate coherent arguments and to gain expertise in logical thought, critical evaluation and problem solving.
PO3	**COMMUNICATION SKILLS** Students will be able to clearly express views and ideas both in writing and when speaking and to acquire skills in attentive listening and inter personal communication.
PO4	**SCIENTIFIC REASONING & RESEARCH APTITUDE** Will enhance their aptitude for conducting research and the ability to use practical, creative and scientific approaches to find solutions for real life situations.
PO5	**ETHICAL AWARENESS & SOCIETAL COMMITMENT** Each student shall be capable of accepting ethical values in all spheres of life and to develop into morally upright, socially conscious people who promote respect for human values and the sustainability of the environment.

DEPARTMENT OF COMMERCE

PROGRAMME : Master of Commerce

PROGRAMME SPECIFIC OUTCOMES

PSO Number	PSO Statement
PSO1	Inculcating managerial skills and theoretical knowledge for managing business units with special focus on functional areas of business and management.
PSO2	Imparting advanced accounting knowledge and skills and provide awareness regarding latest developments in the field of accounting.
PSO3	Enabling learners to acquire advanced theoretical knowledge on research methods and techniques and also developing capabilities in the application of research in solving business related problems.
PSO4	Acquisition of expertise in specialized fields like finance, taxation, marketing, management and information technology.
PSO5	Development of quantitative aptitude and analytical skills of the learner.
PSO6	Facilitating learner to pursue career in professional areas of commerce and management such as taxation, financial services, consultancy etc.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
CM010101: SPECIALISED ACCOUNTING	CO1	Providing an in depth understanding about theoretical and practical aspects of major Accounting Standards to apply the same in different practical situations.
	CO2	Ascertain the value of goodwill and value of companies based on the value of shares and compare the real value of shares and with the market prices and identify the mispricing.
	CO3	In depth understanding about the determination of purchase consideration in the event of amalgamation and to prepare post amalgamation financial statements
	CO4	Develop a clear understanding about different types of NBFCs, their provisioning norms and to understand the concept of NAV of mutual funds through its computation.
	CO5	Acquaint with the theoretical aspects of emerging areas in accounting
CM010102: ORGANISATIONAL BEHAVIOUR	CO1	Basic understanding about the concepts of organisational behaviour.
	CO2	A very good understanding about individual behaviour, personality and motivation
	CO3	Imparting deep understanding about group behaviour and leadership related to organisational behaviour.
	CO4	Add the knowledge base of the learner regarding change management and deal with stress.
	CO5	Impart knowledge about the role of organisational culture and conflict on organizational behavior.
CM010103: MARKETING MANAGEMENT.	CO1	The learner receives a basic understanding about concepts like customer centricity, CRM, value chain and customer delight.
	CO2	The learner should get a clear understanding about the market segmentation process and its applications in marketing strategies.
	CO3	Develop an idea about consumer behaviour and its impact.
	CO4	Good understanding about product line, product mix, brand equity, brand identity, brand personality and brand image.
	CO5	Develop sound ideas regarding services marketing and service quality.
CM010104: MANAGEMENT OPTIMISATION TECHNIQUES	CO1	Develop theoretical understanding about various business optimisation models.
	CO2	Ability to develop Linear Programming Models for business problems and solve the same.
	CO3	Application of Linear Programming in the areas of transportation and assignment.
	CO4	Develop decision making skills under uncertainty, risk and replacement of assets.
	CO5	Understand and apply network analysis techniques for project implementation.
CM010105: METHODOLOGY	CO1	Develop a thorough understanding about the basic concepts of social science research.

FOR SOCIAL SCIENCE RESEARCH	CO2	After completing this module, the learner should be able to formulate a research design.
	CO3	After studying the theoretical aspects of sampling design, the learner should be able to draw a sampling design.
	CO4	Detailed knowledge about the instrument development, its validation and different forms of scaling.
	CO5	Understand the technique of research reporting.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
CM010201: ADVANCED CORPORATE ACCOUNTING	CO1	The learner should be able to prepare consolidated financial statements of group companies.
	CO2	Preparation of the financial statements of public utility companies and deal with the disposal of surplus.
	CO3	Develop an awareness on the procedure of bankruptcy under the recent Bankruptcy Procedure Code.
	CO4	Familiarising the learner with the accounting procedures of liquidation of companies and preparation of various statements required as per the Companies Act.
	CO5	Basic understanding about the preparation of accounts of some special lines of businesses like shipping, hospitals and hotels.
CM010202: HUMAN RESOURCE MANAGEMENT	CO1	Acquaintance with basic concepts of HRM and performance appraisal.
	CO2	Understanding about human resource development, stress management and work life management.
	CO3	High level knowledge about various aspects of training.
	CO4	Understanding about various aspects of industrial relations so as to evaluate the real cases of industrial relations.
	CO5	Understanding about HR outsourcing HR accounting and HR audit.
CM010203: INTERNATIONAL BUSINESS AND FINANCE	CO1	Familiarisation with globalisation, internationalisation of business and the international business environment.
	CO2	Understanding about theories of international trade, trade barriers and trade blocks.
	CO3	Imparting knowledge about various economic institutions related to international trade.

	CO4	Achieve high level knowledge about various aspects of international monetary system.
	CO5	Develop an understanding about the international investment environment.
CM010204: QUANTITATIVE TECHNIQUES	CO1	This course intends to give understanding about the applications of quantitative techniques.
	CO2	This course intends to give understanding about the applications of quantitative techniques.
	CO3	After learning this course, the student should be in a position to identify appropriate parametric test for testing the hypotheses.
	CO4	The learner should be equipped with the skills to identify the most suitable non parametric test for testing a hypothesis.
	CO5	The learner should be equipped with the skills to apply the principles of Statistical Quality Control.
CM010205: STRATEGIC MANAGEMENT	CO1	Strong understanding about the theoretical foundations of strategic management.
	CO2	Clear understanding about various models of environmental and internal analysis.
	CO3	Development of an idea about the strategy formulation process at the corporate level.
	CO4	Familiarization with various tools strategic planning and evaluation.
	CO5	Understanding about the modes of implementation and control of strategies.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
CM010301: STRATEGIC FINANCIAL MANAGEMENT	CO1	Learn the theoretical foundations of financial management and financial management decisions.
	CO2	Evaluate the feasibility of different options regarding discount, credit period, storage cost etc related to current assets and current liabilities and estimate working capital requirements.
	CO3	Evaluate long term proposals and evaluate the risk associated with long term investment.
	CO4	Evaluate the decisions regarding leasing of capital assets.
	CO5	Evaluate and compare the performance of business entities.

CM010302: INCOME TAX - LAW AND PRACTICE	CO1	Acquire knowledge regarding the basic concepts of Income Tax.
	CO2	Able to compute the income from salary and house property.
	CO3	Determine taxable profit of a business or profession.
	CO4	Able to compute capital gain and income from other sources.
	CO5	Able to calculate Gross Total Income of an individual.
CM010303: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT	CO1	Able to understand the concepts of investments, different types of investments, views of investment and process of investment and apply the theoretical knowledge in investment information for selecting the securities.
	CO2	Understanding the types of risk in security market and Applying various tools for the valuation of bonds as well as economic indicators to predict the market.
	CO3	Understand the tools of technical analysis, analyse the patterns and trends in the market by using various tools and enable one to take investment decisions after understanding market efficiency level also.
	CO4	Applying Modern portfolio theories and construct optimum portfolios.
	CO5	Revising constructed portfolios as per risk and return association by using different strategies.
CM800301: INDIRECT TAX LAWS	CO1	Understand the basic concepts of the Goods and Services Tax
	CO2	Develop a clear idea about the levy and collection of tax and tax credit
	CO3	Develop the knowledge about the provisions regarding registration, preparations of books of accounts and filing of returns under the Act
	CO4	Understand about the powers of GST authorities regarding inspection, search and seizure
	CO5	Basic understanding about the Customs Law in India.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
CM010401: ADVANCED COST AND MANAGEMENT ACCOUNTING	CO1	Apply activity based absorption methods instead of conventional absorption methods.
	CO2	Apply the marginal costing principles in decision making situations of businesses.
	CO3	Dealing with practical cases of pricing decisions in different situations
	CO4	Understand the concepts of standard costing, and the process of cost control through it.

	CO5	Deal with the practical issues related to transfer pricing
CM010402: INCOME TAX – ASSESSMENT & PROCEDURES	CO1	Compute the total income and tax liability of firms and Association of Persons
	CO2	Carry out assessment of companies and determine their tax liability
	CO3	Make the assessment of co operative societies and trusts.
	CO4	Understanding about the assessment procedures, TDS and advance payment of tax and application in various situations
	CO5	Learn tax planning concepts and apply the same
CM800401: DERIVATIVES AND RISK MANAGEMENT	CO1	Knowledge about the derivative market in India, its evolution, types, players, risks involved and basic quantitative foundations
	CO2	Analyze the implications of Risk in the perception of individuals and Institutions and measurement of risks
	CO3	Understand and explain the concept of forward market and its function
	CO4	Analyse the operation and pricing of various types of futures
	CO5	Understand the concepts and methodology of option trading and apply the models of pricing the option contracts
	CO6	Develop an idea of exchanges through swaps
CM800402: PERSONAL INVESTMENT AND BEHAVIOURAL FINANCE	CO1	Understand the meaning and significance of Financial literacy, Financial Discipline & Financial Competency, the role of family and parents in financial socialization
	CO2	Understand and Evaluate the Significance of savings on financial destiny and its relationship with Consumerism and to understand the different elements/steps in Personal Financial Planning to attain Financial Well Being and Evaluate the different retail investment avenues.
	CO3	Know the meaning of Behavioural Finance, its evolution and related theories
	CO4	To understand different Heuristics, Biases and other Irrational Investment Behaviours
	CO5	Understand the relationship between biases and to adopt techniques to lower the impact of biases

PROGRAMME : Bachelor of Commerce

PROGRAMME SPECIFIC OUTCOMES

PSO Number	PSO Statement
PSO1	Generate deep rooted conceptual understanding in Commerce and master the knowledge of methods, skills, tools and systems in business.
PSO2	Develop problem solving skills related to different areas of business, demonstrate communication skills and build up confidence to tackle the challenges in the corporate world.
PSO3	Demonstrate entrepreneurial skills by identifying and exploring new opportunities through innovations.
PSO4	Identify and pursue professional career paths in accounting, finance, management and other allied areas.
PSO5	Reflect environmental consciousness, societal commitment, leadership skills, moral values and overall development in life.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
CO1CRT01: DIMENSIONS AND METHODOLOGY OF BUSINESS STUDIES	CO1	Understand about the different forms of Business, stakeholders and Business Environment.
	CO2	Provide an awareness about the development of India during the post-independence period, LPG and economic initiatives during the last decade.
	CO3	Provide knowledge about Technology integration in business, E-commerce, M-Commerce and E-payment.
	CO4	Understand Business ethics, CSR and Corporate Governance
	CO5	Understand the fundamentals of research and business research
CO1CRT02: FINANCIAL ACCOUNTING I	CO1	Create an understanding on accounting concepts and conventions and applying these to the preparation of final accounts of sole trader
	CO2	Create an ability to solve the problems of converting single entry accounts into double entry accounts
	CO3	Providing an understanding on the concept of royalty and its accounts preparation
	CO4	Develop an understanding on accounting of consignment and preparation of books of accounts of both consignor and consignee
	CO5	Create an understanding on the theoretical aspects of farm accounting and preparation of farm accounts, crop accounts and final accounts of farming activities
CO1CRT03: CORPORATE REGULATIONS AND ADMINISTRATION	CO1	Become acquainted with the historical background and structure of Company Law in India, specifically the Companies Act of 2013.
	CO2	Understand the legal provisions relating to the Promotion and formation of a company and about the key documents of a company, viz., Memorandum of Association, Articles of Association and Prospectus
	CO3	Attain knowledge on the issuance of shares, rights and duties of shareholders and types of meetings in the companies
	CO4	Understand the provisions of appointment, removal and disqualifications of key managerial personnel of a company.
	CO5	Acquire knowledge on modes and procedure of winding up of companies.

CO1CMT01: BANKING AND INSURANCE	CO1	Acquire fundamental understanding of what banks are, their evolution, functions and classification, credit creation, familiarity with RBI, Credit control
	CO2	Understanding how banking industry is evolving in response to technological advancement and to gain insights into the historical developments in banking sector
	CO3	Understanding the relationship between Banker and Customer, different types of accounts and negotiable instruments
	CO4	Understanding of Insurance principles, practices and role of insurance in risk management, awareness of the regulatory framework governing the insurance industry
	CO5	Understanding various types of Insurance, create familiarity with provisions and conditions related to insurance policies, Policy Conditions etc

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
CO2CRT04: FINANCIAL ACCOUNTING II	CO1	Ability to prepare books of account under hire purchase system.
	CO2	Construct financial statements of dependent and independent branches.
	CO3	Structure the financial statements of departmental business. Create an ability to prepare departmental accounts
	CO4	Learn about the settlement of accounts on dissolution of partnership firm and how to apply Garner Vs Murray principle
	CO5	Provide conceptual clarity about Accounting Standards AS1, AS2, AS9, AS10 and AS 19
CO2CRT05: BUSINESS REGULATORY FRAMEWORK	CO1	Understand the legal provisions relating to Indian Contract Act, 1872 and its practical application in the realm of business.
	CO2	Acquire knowledge of bailment, finder of lost goods, and pledge
	CO3	Familiarise with the rules governing indemnity and guarantee
	CO4	Acquire knowledge of rules governing agency, rights and duties of Principal and agent
	CO5	Understand the legal provisions of the Sale of Goods Act.
CO2CRT06: BUSINESS MANAGEMENT	CO1	Develop a comprehensive understanding of management, management functions and its applications
	CO2	Enable students to analyse different business situations and equip them to apply appropriate management principles

	CO3	Develop necessary traits and qualities among students so as to make them effective leaders
	CO4	Develop an understanding of motivation and its theories
	CO5	Develop an understanding of modern management techniques
CO2CMT02: PRINCIPLES OF BUSINESS DECISIONS	CO1	To acquire a comprehensive comprehension of the decision making process, Evaluate the application of economic theories in decision making
	CO2	Comprehensive understanding of Law of Demand, analyze and calculate demand elasticity, demand forecasting using statistical methods and economic models
	CO3	Understanding the relationship between Banker and Customer, different types of accounts and negotiable instruments
	CO4	Understanding of Insurance principles, practices and role of insurance in risk management, awareness of the regulatory framework governing the insurance industry
	CO5	Understanding various types of Insurance, familiarity with the insurance policy

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
CO3CRT07: CORPORATE ACCOUNTS I	CO1	Discuss the concept of share issue and types of share capital, Learn about the redemption of preference shares, right issue, bonus issue and buyback of shares. Create a conceptual understanding about ESOP
	CO2	Develop awareness about provisions in companies act with respect to underwriting of shares and determining underwriters liability
	CO3	Prepare and present financial statement of joint stock companies as per the companies act 2013
	CO4	Learn to prepare investment accounts and understand the concept of EX-interest and Cum- interest
	CO5	Acquire the basic knowledge about the insurance claim accounts and its settlement
CO3CRT08: QUANTITATIVE TECHNIQUES FOR BUSINESS- 1	CO1	Create an insight into the basic concepts of Statistics.
	CO2	Overview about statistical survey, equip with the skills to apply the appropriate sampling survey method and collect data
	CO3	Understanding Central Tendency, Proficiency in calculating the mean, competence in finding the median, strategies for handling missing or incomplete data when calculating central tendency

	CO4	Overview of the concept of Dispersion, proficiency in calculating the range, quartile range, quartile deviation, mean deviation, lorenz curve
	CO5	Understanding of the fundamental concepts of Interpolation and extrapolation, proficiency in applying various interpolation and extrapolation methods
CO3CRT09: FINANCIAL MARKETS AND OPERATIONS	CO1	Provide an overview about the Indian financial system, Capital market and Money market.
	CO2	Acquire in-depth knowledge of the primary market, including the mechanisms of initial public offerings (IPOs), the role of underwriters, and the process of issuing new securities.
	CO3	Gain insights into the functioning of secondary markets including stock exchanges, trading mechanisms, and the impact of market indices.
	CO4	Awareness about the mutual funds and role of AMFI.
	CO5	Provide basic knowledge about derivatives and commodity exchanges in India
CO3CRT10: MARKETING MANAGEMENT	CO1	Develop an idea about the concepts of marketing, marketing environment and marketing mix
	CO2	Have a comprehensive knowledge on Market segmentation, Product Planning, product life cycle, branding, packaging and labeling.
	CO3	To analyse the pricing policies and pricing strategies adopted by businesses
	CO4	Acquire knowledge on physical distribution - logistics and supply chain management and channels of distribution
	CO5	Familiarize with the recent trends in marketing
CO3OCT01: GOODS AND SERVICES TAX	CO1	Describe the concept of GST; the provisions for levy and collection of tax; the concept of supply; RCM and Composition levy
	CO2	Understand and compute of value of supply
	CO3	Understand and compute of time of supply and determine place of supply
	CO4	Understand provisions regarding Input Tax Credit and payment of GST and their computation
	CO5	Understand provisions regarding registration, returns, assessment, refund etc.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
CO4CRT11: CORPORATE ACCOUNTS II	CO1	Prepare final accounts of life insurance and general insurance companies
	CO2	Structure the final accounts of banking companies.
	CO3	Plan the capital structure of a company by reconstruction methods.
	CO4	Compare amalgamation, absorption and external reconstruction in Corporate Sector.
	CO5	Outline the procedure of Liquidation of companies and settlement of claim
CO4CRT12: QUANTITATIVE TECHNIQUES FOR BUSINESS-II	CO1	Comprehension to the concept of correlation, proficiency in calculating Pearson's correlation coefficient, Spearman's Rank correlation
	CO2	Understanding Regression analysis, fitting straight lines to data and making predictions, algebraic methods of regression and standard error estimate.
	CO3	Understanding the concept of Index numbers, familiarity with different types of index, constructing Index numbers
	CO4	Understand and evaluate data using time series analysis. Understanding about determination of trend using different methods
	CO5	Understand and apply knowledge on determining the probability of simple events.
CO4CRT13: ENTREPRENEURSHIP DEVELOPMENT AND PROJECT MANAGEMENT	CO1	Understand the concept of entrepreneurship, its functions and role in the economic development of a nation.
	CO2	Learn the classification of entrepreneurs and steps to start MSME unit
	CO3	Get acquainted with project management, including an understanding of project concepts, project life cycle and methods for idea protection. Gain insights into legal safeguards in India, covering areas such as patents, trademarks, geographical indications, and designs.
	CO4	Understand project formulation and its steps. Familiarize with the preparation of project report.
	CO5	Acquire knowledge on the various support systems and institutions fostering entrepreneurship in India
CO4OCT01: FINANCIAL SERVICES	CO1	Identify and describe the different types of financial services available in the country with special focus to Merchant Banking and its development in India
	CO2	Understand Venture Capital and Securitization
	CO3	Understand Leasing and Factoring
	CO4	Understand Credit Rating
	CO5	Understand Mergers and Acquisitions and the recent trends in the financial services sector for businesses and consumers.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
CO5CRT14: COST ACCOUNTING - 1	CO1	Summarise the basic concepts of Cost Accounting, inventory management, labour cost and overheads.
	CO2	Apply the cost accounting concepts and principles for determination of inventory cost, labour cost and overheads.
	CO3	Carry out the Cost Accounting tools for cost control and reporting.
	CO4	Apply the Cost Accounting methods and tools for determining the cost of product/service and fix the selling price.
	CO5	Understand and apply the principles of Activity Based Costing System.
CO5CRT15: ENVIRONMENT MANAGEMENT AND HUMAN RIGHTS	CO1	Provide an awareness about natural resources and eco system.
	CO2	Understand theimportance of biodiversity and its conservation. Awareness about environmental pollution, disaster management, Environmental laws in India and Sustainable Development Goals.
	CO3	Provide a basic knowledge about the recent developments in the field of Commerce relating to environment
	CO4	Provide an awareness about Right to Information Act, 2005
	CO5	General idea about human rights in Global and Indian context. Awareness about the constitutional rights for various categories in India
CO5CRT16: FINANCIAL MANAGEMENT	CO1	Develop a comprehensive understanding of financial management, applications, and financial decisions
	CO2	Develop a comprehensive understanding of capital structure, capitalization and leverage and the impact on value of the firm
	CO3	Equip students to analyze and evaluate various financial scenarios and enable them to take appropriate decisions that adds value to the business.
	CO4	Equip students to analyze and evaluate long term investment proposals.
CO5OCT01: INCOME TAX- I	CO1	Comprehend the meaning of Income tax and basic concepts under Income Tax Act
	CO2	Understand and apply the provisions regarding determination of residential status and examine the scope of total income based on residential status and identify the incomes which are exempt from tax

	CO3	Understand and apply the provisions for determination of Income from Salary
	CO4	Identify the incomes chargeable under the head 'Income from House Property' and compute income from house property in various situations
	CO5	Understand the provisions relating to determination of income under the head 'Profits and Gains of Business or Profession' and apply the provisions to compute the income under the head.
OPEN COURSE CO5OP03: FUNDAMENTALS OF ACCOUNTING	CO1	Develop a fundamental understanding of Accounting terms, principles and concepts, including the accounting equation and the double entry accounting system
	CO2	Learn to prepare original book of entry, journalising the transaction
	CO3	Gain proficiency in recording various financial transactions, such as sales, purchases and expenses in accounting journals and ledgers, subdivisions of journal
	CO4	Learn how to prepare and use a trial balance to ensure the accuracy
	CO5	Able to prepare of Final Accounts

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
CO6CRT17: COST ACCOUNTING - II	CO1	Understand the basic concepts, tools and principles of cost accounting methods and techniques.
	CO2	Apply the concepts and tools of cost accounting methods for determination of cost and price of products /services
	CO3	Carry out the principles and procedures for recording in cost books in industries following specific order, operating and process costing methods.
	CO4	Apply the concepts of cost accounting techniques like marginal costing and budgetary control.
	CO5	Carry out the cost accounting techniques for decision making in business.
CO6CRT18: ADVERTISEMENT AND SALES MANAGEMENT	CO1	Understanding the concepts, principles, functions of Advertising, various advertisements, ethics in advertisement, regulations of advertising in India
	CO2	Analyze and make decisions regarding the most feasible advertisement appeal and media, acquire copy writing skills

	CO3	Ability to decide an appropriate test for measuring the effectiveness of advertisement as they become aware of various tests for measuring the effectiveness of advertisements.
	CO4	Overview about promotion mix and in depth knowledge in sales promotion. Conceptual clarity between sales promotion and advertisement.
	CO5	Knowledge about personal selling; principles, types of sales persons, sales force management and its evaluation.
CO6CRT19: AUDITING AND ASSURANCE	CO1	Provide basic understanding about auditing, types of audit, qualities and qualifications for an auditor. An outline about Auditing and Assurance Standards Board in India.
	CO2	Awareness about audit engagement, audit documentation and audit evidence.
	CO3	Detailed knowledge about internal control, internal check, internal audit, vouching, verification and valuation
	CO4	Basic knowledge about audit of limited companies based on Company's Act, 2013. Awareness about the qualifications, power, duties, liabilities of an auditor. An outline about Audit report.
	CO5	Awareness about Government Audit, Comptroller and Audit General, Audit of non-profit making organisations. Provide understanding about Investigation.
CO6CRT20: MANAGEMENT ACCOUNTING	CO1	Develop a comprehensive understanding of management accounting and its applications.
	CO2	Enable students to analyze financial statements and interpret the performance of business undertakings.
	CO3	Equip students to evaluate financial statements and enable them to prepare funds flow statements and cash flow statements.
	CO4	Develop a comprehensive understanding of ratio analysis and enable them to appraise performance and prepare projected financial statements
CO6OCT01: INCOME TAX- II	CO1	Understand and apply the provisions for determination of Capital Gains
	CO2	Understand and apply the provisions for determination of Income from Other Sources
	CO3	Understand provisions for clubbing and aggregation of income, set-off and carry forward & set-off, deductions and apply the provisions for computation of Total Income of an individual
	CO4	Identify agricultural income, understand integration provisions and determine Total income of individual
	CO5	Identify Income Tax Authorities and understand the concept of Returns, Assessment, TDS/TCS, PAYE, Refund, Recovery, TCC, Tax planning etc.

DEPARTMENT OF ZOOLOGY

PROGRAMME : Master of Science

PROGRAMME SPECIFIC OUTCOMES: M.Sc Zoology

PSO Number	PSO Statement
PSO1	Employ biological concepts in cellular and internal organization of living systems to describe numerous metabolic processes in organisms.
PSO2	Appraise the beauty of nature with a vision to pass on the valuable and held dear natural resources to the future generations.
PSO3	Become proficient in the principles of animal sciences, comprehend the intricate interactions between diverse living things, and explain how life on earth is interconnected.
PSO4	Implement various activities as the torchbearers of the evolving trends in biological sciences.
PSO5	Create an investigative strategy to find solutions to the pressing questions in the life sciences.
PSO6	Address several biological disciplines, such as eugenics, to enhance the socioeconomic standard of living for generations to come.
PSO7	Apply aquaculture practices, advanced fishery technology and understand the potential marine resources across the world with special reference to the inland and marine fisheries of our country.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
ZL010101: ANIMAL DIVERSITY: PHYLOGENETIC AND TAXONOMIC APPROACHES (Theory)	CO1	Understand the phylogeny and responsiveness of animals to the changes around them.
	CO2	Comprehend several taxonomic procedures and biological classification frameworks.
	CO3	Evaluate the evolutionary connections and inter-relations between the various animal groups.
	CO4	Apply the tool of taxonomic keys.
ZL010102: EVOLUTIONARY BIOLOGY AND ETHOLOGY (Theory)	CO1	Understand the biological evolution.
	CO2	Analyse the arguments and theories regarding the animal evolution and to make decisions based on empirical evidences.
	CO3	Understand evolutionary processes and how they relate to human biology in an effective manner
	CO4	Understand fundamentals and recent advances of ethology.
	CO5	Identify the animal behaviours at various levels of the biological hierarchy.
ZL010103: BIOCHEMISTRY (Theory)	CO1	Comprehend on the chemistry of life and processes of life.
	CO2	Understand makeup and functioning of biologically significant compounds.
	CO3	Analyse Metabolic pathways of physiological importance
	CO4	Elucidate the effects of abnormal manifestation of biological molecules and the resultant diseases.
ZL010104: BIOSTATISTICS AND RESEARCH METHODOLOGY (Theory)	CO1	Understand types of research and research process.
	CO2	Apply the appropriate statistical tests in research procedures.
	CO3	Sensitization of ethics in research and the need to avoid the cruelty to laboratory animals during the setting up of animal models.

	CO4	Apply research methodological tools and accessory techniques
	CO5	Articulate analytical and critical thinking skills in problem solving.
ZL010105: ANIMAL DIVERSITY: EVOLUTIONARY, ETHOLOGICAL AND BIOLOGICAL METHODS & APPROACHES (Practical)	CO1	Comment on the importance of several vertebrate and invertebrate species.
	CO2	Create dichotomous keys to identify an organism.
	CO3	Resolve the problems in population genetics
	CO4	Figure out the habits and behavioral patterns of organisms around us.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
ZL010201: FIELD ECOLOGY (Theory)	CO1	Practice ecological principles to manage and maintain the natural and commercial commodities.
	CO2	Raise public awareness on the need to conserve nature and natural resources.
	CO3	Understand the different ecological fields of studies.
	CO4	Analyse the diverse facets of the population and the interactions between them.
	CO5	Deduce alternatives to the problems caused by humans with the environment and management of the same.
ZL010202: DEVELOPMENTAL BIOLOGY (Theory)	CO1	Summarise the theories and processes in developmental biology.
	CO2	Describe the genetic mechanisms that give rise to a healthy viable individual.
	CO3	Recall the pre and post fertilization events in reproduction.
	CO4	Determine the developmental processes that results in a sound individual.
	CO5	Facilitate the learner to the advanced domains of embryology and it's relevance to the mankind.
ZL010203: GENETICS AND BIOINFORMATICS (Theory)	CO1	Recall the underlying principles and theories of inheritance.
	CO2	Collaborate the significance of genetics and to evolution and natural selection.
	CO3	Appraise the fairly recent field of Bioinformatics and to take the advantage of the same in conducting sequence analysis.
	CO4	Integrate the theories of systems biology with that of Genomics and Proteomics.
	CO5	Illustrate the fine structure and molecular basis of the genetic material.

ZL010204: MICROBIOLOGY AND BIOTECHNOLOGY (Theory)	CO1	Employ the methods in biotechnology for improving the standard of living of the human race.
	CO2	Describe the world of microbes with respect to their diversity and basic structure.
	CO3	Articulate the learners to the biosdfety,, bioethics and intellectual property rights related to biotechnology.
	CO4	Understand the modern biotechnology practices and outlooks in the fields of medicine, environment, agriculture and nano medicine.
	CO5	Develop a solid comprehension on the discipline of microbiology and beneficial microbes.
ZL010205: DIVERSITY OF LIFE: ECOLOGICAL, EMBRYOLOGICAL, HEREDITARY AND MICROBIAL METHODS AND APPROACHES (Practical)	CO1	Evaluate the relevance of various soil and water quality Indicators.
	CO2	Cite the genetic issues with principles of inheritance.
	CO3	Practice various staining procedures to study the different microorganisms.
	CO4	Recognise the different developmental stages of different organisms.
	CO5	Apply a variety of bioinformatics tools to analyse data and to build phylogenetic trees.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
ZL010301: ANIMAL PHYSIOLOGY (Theory)	CO1	Compare the functioning of the organ systems across the animal world.
	CO2	Distinguish physiology and anatomy of animals that represent diverse groups.
	CO3	Develop a thorough and detailed understanding regarding the way the body works normally to help with the treatment of abnormal and illness situations.
	CO4	Generalize the knowledge about Human Physiology.
	CO5	Compare and contrast the different life supporting mechanisms in the physiology of different organisms with regard to the habitat in which they are in.
ZL010302: CELL AND MOLECULAR BIOLOGY (Theory)	CO1	Examine the components that make up the fundamental building blocks of life.
	CO2	Decipher the recent advances in cell and molecular biology and their implications on the well-being of humans.

	CO3	Examine the guiding principles of Molecular biology and Molecular Genetics.
	CO4	Develop the learner's ability to review and comprehend on the fundamentals of cell biology.
	CO5	Discover the gap areas in the discipline of molecular biology , to initiate researches in the future.
ZL010303: BIOPHYSICS INSTRUMENTATION AND BIOLOGICAL TECHNIQUES (Theory)	CO1	Apply the fundamental physical concepts to explain and comprehend the biological systems.
	CO2	Practice the operational skills of different instruments used in biological researches.
	CO3	Identify the recent trends such as Biomimetics and nano-robotics as promising fields of research in different aspects.
	CO4	Recall the principles and appropriate applications of the advanced separation and analytical techniques employed in biological researches.
	CO5	Designing and resolving both the current and the up coming challenges encountered by humankind.
ZL010304: IMMUNOLOGY (Theory)	CO1	Analyse the contribution of immunology to the well-being and health of humans.
	CO2	Identify the new developments in Immunology.
	CO3	Determine the differences between a multitude of terms in Immunology.
	CO4	Visualise the development of the immune system to know how the body fights off sickness, and what happens once it all goes wrong.
	C05	Formulate the ideas about different congenital immunodeficiency diseases.
ZL010305: MOLECULAR, PHYSIOLOGICAL AND IMMUNOLOGICAL METHODS AND APPROACHES IN BIOSCIENCES (Practical)	CO1	Examine histochemical studies and slide preparations used in cell biology, and comprehend how various biological apparatuses operate.
	CO2	Identify the different factors that affect the enzyme activity in in-vitro systems.
	CO3	Apply various softwares to manifest physiological principles virtually.
	CO4	Give examples for the different immunological techniques.
	CO5	Analyse the use of immunological concepts in Vaccine demonstrations.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
ZL800401: NUTRITION, GROWTH AND PHYSIOLOGY OF FISHES (Theory)	CO1	Impart knowledge on various aspects of Fish biology.
	CO2	Learn the functional physiology of fishes.
	CO3	Understand the basic principles of fish nutrition.
	CO4	Compare and contrast the different nutritional needs of various fishes.
	CO5	Comment on the various adaptations of fishes with regard to their habitat.
ZL800402: FISHERY RESOURCE MANAGEMENT (Theory)	CO1	Revise the knowledge on inland and marine fishery resources in India.
	CO2	Recall the applications of different fisheries forecasts technologies in enhancing the profit.
	CO3	Comprehend on the benthic ecology and unexplored resources.
	CO4	Identify the environmental factors that influence the seasonal variations in fish catches.
	CO5	Develop an interest to address the various puzzles in Fishery resource management.
ZL800403: FISHERY SCIENCE AND TECHNOLOGY (Theory	CO1	Understand the advancements in Aquaculture.
	CO2	Explain the factory sanitation and hygiene to be maintained in the processing of various fishery byproducts.
	CO3	Understand the applications of various quality assurance systems and international certification methods in managing fishery resources.
	CO4	Develop an overview about the potential marine resources for preparing bio-active compounds and pharmaceuticals.
	CO5	Interpret various fish by-products and fishing methods.
ZL800404: FISHERY SCIENCE-METHODS AND APPROACHES (Practical)	CO1	Dissect and compare the anatomy of teleost fishes.
	CO2	Identify and classify the distinguishing features of commercially important shell fishes.

	CO3	Compare the feeding habits of fish through qualitative and quantitative analysis of gut contents of herbivore, carnivore and omnivore species.
	CO4	Identify the various components of a mechanized fishing craft from the provided actual specimen/model/drawing.
	CO5	Describe the exotic and indigenous aquarium fishes and the pathogenic agents in fishes.

PROGRAMME : Bachelor of Science

PROGRAMME SPECIFIC OUTCOMES: B.Sc Zoology

PSO Number	PSO Statement
PSO1	Students grasp the interconnections between various living species, perceive their knowledge and proficiency in the fundamentals of animal sciences.
PSO2	Understand environmental conservation processes and their significance, pollution prevention, the preservation of endangered species, wildlife management, climatic changes, and global management.
PSO3	Analyse the intricate relationships between the numerous animals of different Phyla, their distribution, and how they interact with their surroundings.
PSO4	Develop interest and proficiency in using scientific instruments introduced as part of practical courses, resulting in overall growth.
PSO5	Apply the gained knowledge to real-world or business situations
PSO6	Identify research issues, and use science to address them.

COURSE OUTCOMES

SEMESTER I (Core Courses)		
Course code and Title	**No.**	**Course Outcome**
ZY1CRT01: GENERAL PERSPECTIVES IN SCIENCE & PROTISTAN DIVERSITY (Theory)	CO1	Understand basic philosophy, concepts and scope of science.
	CO2	Infer various levels of biological diversity through systematic classification
	CO3	Recognize taxon-level identification of animals
	CO4	Illustrate the diversity of Protozoans
	CO5	Recognize various parasitic forms in the lower invertebrates

SEMESTER I - Complementary Course (Botany)		
Course code and Title	**No.**	**Course Outcome**
BO1CMT01: CRYPTOGAMS, GYMNOSPERMS AND PLANT PATHOLOGY (Theory)	CO1	Learn the fundamentals of plant science
	CO2	Compare the various plant groups, including algae, bryophytes and gymnosperms.
	CO3	Develop an interest in the diversity of fungi and lichens.
	CO4	Study the pathological importance of microorganisms.

SEMESTER II (Core Courses)		
Course code and Title	**No.**	**Course Outcome**
ZY2CRT02: ANIMAL DIVERSITY - NON-CHORDATA (Theory)	CO1	Understand different levels of biodiversity through a systematic classification of invertebrate animals.
	CO2	Interpret the evolutionary importance of invertebrate fauna.
	CO3	Acquire knowledge on invertebrate parasites of other invertebrates and vertebrates
ZY2CRP01: GENERAL PERSPECTIVES IN SCIENCE, PROTISTAN DIVERSITY BIODIVERSITY & ANIMAL DIVERSITY– NON-CHORDATA (Practical)	CO1	Construct right laboratory practices in students and train them on appropriate handling of lab equipment.
	CO2	Understand biodiversity and identify organisms based on exterior and interior traits.

SEMESTER II - Complementary Course (Botany)		
Course code and Title	**No.**	**Course Outcome**
BO1CMT02: PLANT PHYSIOLOGY (Theory)	CO1	Recognize the mechanisms underlying the numerous physiological processes that affect plant life.
	CO2	Discuss the biological roles and deficiency symptoms of different mineral nutrients.
	CO3	To understand how water and plants interact in an environment.
	CO4	Realise the significance of plant physiological processes and how they affect human life.
BO2CMP01: CRYPTOGAMS, GYMNOSPERMS AND PLANT PATHOLOGY & PLANT PHYSIOLOGY (Practical)	CO1	Recognise the microorganism based on plant diseases.
	CO2	Categorise the Cryptogams and gymnosperms based on their habit and structure.
	CO3	Enable students to pre- process plant specimens for microscopic analysis.
	CO4	Understand the plant physiological processes through experiments.

SEMESTER III (Core Course)		
Course code and Title	**No.**	**Course Outcome**
ZY3CRT03: ANIMAL DIVERSITY-CHORDATA (Theory)	CO1	Learn about chordates and their classification.
	CO2	Understand the economic importance of certain chordates .
	CO3	Understand evolutionary relationships between chordate groups..

SEMESTER III - Complementary Course (Botany)		
Course code and Title	**No.**	**Course Outcome**
BO1CMT03: ANGIOSPERM TAXONOMY AND ECONOMIC BOTANY (Theory)	CO1	Recognize the common species of plants growing in Kerala.
	CO2	Learn about the plants that are of great economic significance.
	CO3	Describe the plant morphology terminologies.
	CO4	Learn about the naming and taxon level identification of plants.

SEMESTER IV (Core Course)		
Course code and Title	**No.**	**Course Outcome**
ZY4CRT04: RESEARCH METHODOLOGY, BIOPHYSICS AND BIOSTATISTICS (Theory)	CO1	Introduce basicconcept of scientific method in the research process and various research designs.
	CO2	Improve research communication and scientific documentation skills.
	CO3	Raise awareness of biological laws and ethical values.
	CO4	Understand fundamentals of animal rearing, collection, and preservation.
	CO5	Employ statistical methods in biological studies.
ZY4CRP02: ANIMAL DIVERSITY– CHORDATA, RESEARCH METHODOLOGY, BIOPHYSICS & BIOSTATISTICS (Practical)	CO1	Understand laboratory practices and perform appropriate handling of lab equipment.
	CO2	Understand biodiversity and identify organisms based on exterior and interior traits
	CO3	Solve the biostatistical problems by applying the problem solving strategies in biostatistics.

SEMESTER IV - Complementary Course (Botany)		
Course code and Title	**No.**	**Course Outcome**
BO1CMT04: ANATOMY AND APPLIED BOTANY (Theory)	CO1	To develop an interest in horticultural techniques.
	CO2	Understand the methods of crop improvement.
	CO3	Know the morphological and anatomical adaptations of the plants in different habitats.
	CO4	Gain knowledge about the primary and secondary structure of plants.
BO4CMP02: ANGIOSPERM TAXONOMY AND ECONOMIC BOTANY& ANATOMY AND APPLIED BOTANY (Practical)	CO1	Develop skills to prepare plant specimens for microscopic studies.
	CO2	Describe a given plant in scientific terms.
	CO3	Familiarise the plant propagation methods
	CO4	Recognise and utilise the economic products from significant plants.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
ZY5CRT05: ENVIRONMENTAL BIOLOGY AND HUMAN RIGHTS (Theory)	CO1	Observe fundamental principles in Environmental Sciences, Ecosystems, Natural Resources, Population, Environment, and Society.
	CO2	Focus on Natural resources and conservation, pollutants of the environment, their effects, and control measures.
	CO3	Learn fundamentals of Toxicology, Its effect on animal health and appropriate countermeasures
	CO4	Devise strategies for the conservation and management of the environment that will help to safeguard life on Earth.
	CO5	Discover significance of human rights - its concepts and implications
ZY5CRT06: CELL BIOLOGY AND GENETICS (Theory)	CO1	Understand the structure and function of the cell as the foundation for understanding how all living entities operate.
	CO2	Discover the vital role of genes and how they are handed down in all species' lives
	CO3	Examine genetic disorders, gene mutations, and the numerous causes connected with inborn errors of metabolism

ZY5CRT07: EVOLUTION, ETHOLOGY AND ZOOGEOGRAPHY (Theory)	CO1	Recall theories of evolution.
	CO2	Observe Geological time scale and subsequent evolution of different organisms.
	CO3	Locate fauna according to their distribution among various Zoogeographical realms.
	CO4	Describe animal behaviours and how animals react to different instincts.
ZY5CRT08: HUMAN PHYSIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY (Theory)	CO1	Construct robust foundation in biochemistry, physiology and endocrinology.
	CO2	Explain components of animal physiological processes, with a focus on humans.
	CO3	Illustrate numerous Biochemical pathways
	CO4	Develop a fundamental understanding of the experimental procedures in human physiology, biochemistry and endocrinology.
ZY5OPT02: PUBLIC HEALTH AND NUTRITION (Open course for other streams)	CO1	Instill in students a general knowledge of true sense of health.
	CO2	Recognize the importance of a well-balanced diet in preserving health .
	CO3	Practice yoga and meditation on a daily basis.

SEMESTER VI

Course code and Title	No.	Course Outcome
ZY6CRT09: DEVELOPMENTAL BIOLOGY (Theory)	CO1	Learn various phases of embryo development.
	CO2	Discover various Embryology techniques and equipment.
	CO3	Infer the therapeutic consequences of development and the mechanisms that intervene in developmental changes.
	CO4	Discover various Embryology techniques and equipment.
ZY6CRT10: MICROBIOLOGY AND IMMUNOLOGY (Theory)	CO1	Define the microbiome, including its structure and function.
	CO2	Describe the practical aspects of microbiology.
	CO3	Describe the equipment and procedures utilised in microbiology as well as pathogenic microbe.
	CO4	Understand the structure, functioning, significance and diseases of immune system .
ZY6CRT11: BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY (Theory)	CO1	Define gene manipulation, gene expression, and other terms that will prepare students for further research in the field of genetic engineering.
	CO2	Discover function of biotechnology in industry through the use of microorganisms.
	CO3	Learn significance of different biological databases.
	CO4	Learn ideas and practices of DNA technology, as well as an overview of recent molecular biology techniques.

ZY6CRT12: OCCUPATIONAL ZOOLOGY (APICULTURE, VERMICULTURE, QUAIL FARMING & AQUACULTURE) (Theory)	CO1	Develop self-employment capabilities.
	CO2	Extend scientific knowledge about profitable farming.
	CO3	Develop awareness about cottage industries.
ZY6CBT04: NUTRITION, HEALTH & LIFE STYLE MANAGEMENT (Theory)	CO1	Understand health and the characteristics that determine health and wellness.
	CO2	Illustrate food safety, food rules and regulations
	CO3	Explain lifestyle disorders
	CO4	Understand importance of good lifestyle practices, physical fitness, and healthy eating habits in the management of lifestyle diseases .
ZY6CRP03: ENVIRONMENTAL BIOLOGY AND TOXICOLOGY & CELL BIOLOGY AND GENETICS (Practical)	CO1	Estimate different parameters that determine quality of environment.
	CO2	Acquire the knowledge and commitment to act independently and cooperatively for the long-term development of the environment
	CO3	Prepare and visualize cells and tissues.
ZY6CRP04: EVOLUTION, ETHOLOGY AND ZOOGEOGRAPHY & BIOCHEMSTRY HUMAN PHYSIOLOGY AND ENDOCRINOLOGY (Practical)	CO1	Recognize various evolutionary stages and ethological conditions.
	CO2	Enhance skills in physiological techniques.
ZY6CRP05: DEVELOPMENTAL BIOLOGY, MICROBIOLOGY AND IMMUNOLOGY (Practical)	CO1	Acquire skill in various techniques in Developmental biology.
	CO2	Identify and practice several microbiological and immunological procedures.
ZY6CRP06: BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY AND OCCUPATIONAL ZOOLOGY (Practical)	CO1	Implement tools and techniques in biotechnology, bioinformatics and molecular biology and apply them in solving problems.
	CO2	Analyse the Economic importance and profitable farming methods of various organisms.

COMPLEMENTARY COURSES: Zoology

SEMESTER I - Complementary Course (Zoology)		
Course code and Title	**No.**	**Course Outcome**
ZY1CMT01: NON CHORDATE DIVERSITY	CO1	Understand different levels of biodiversity through a systematic classification of invertebrate animals.
	CO2	Interpret the evolutionary importance of invertebrate fauna.
	CO3	Acquire knowledge on invertebrate parasites of other invertebrates and vertebrates

SEMESTER II - Complementary Course(Zoology)		
Course code and Title	**No.**	**Course Outcome**
ZY1CMT02: CHORDATE DIVERSITY	CO1	Learn about chordates and their classification.
	CO2	Understand the economic importance of certain chordates .
	CO3	Understand evolutionary relationships between chordate groups..
ZY2CMP01: NONCHORDATE DIVERSITY AND CHORDATE DIVERSITY	CO1	Understand biodiversity and identify organisms based on exterior and interior traits .
	CO2	Acquire practical skills in dissections of diverse organisms
	CO3	Practice simple identification of poisonous and non-poisonous snakes

SEMESTER III - Complementary Course (Zoology)		
Course code and Title	**No.**	**Course Outcome**
ZY1CMT03: PHYSIOLOGY AND IMMUNOLOGY	CO1	Explain components of animal physiological processes, with a focus on humans.
	CO2	Learn about the functioning of different organ systems
	CO3	Understand the basic immunological processes of the body

SEMESTER IV - Complementary Course(Zoology)		
Course code and Title	**No.**	**Course Outcome**
ZY1CMT04: APPLIED ZOOLOGY	CO1	Develop self-employment capabilities.
	CO2	Extend scientific knowledge about profitable farming.
	CO3	Develop awareness about cottage industries.
ZY2CMP02: PHYSIOLOGY AND IMMUNOLOGY & APPLIED ZOOLOGY	CO1	Understand the structure, functioning, significance and diseases of immune system .
	CO2	Analyse the Economic importance and profitable farming methods of various organisms.
	CO3	Determine the different human blood groups

DEPARTMENT OF PHYSICS

Programme: Bachelor of Science

PROGRAMME SPECIFIC OUTCOMES: B.Sc Physics

PSO Number	PSO Statement
PSO1	Impart basic knowledge about different branches of Physics
PSO2	Equip students for their future careers both specifically in the branch of Physics and allied subjects and generally for any graduate level programmes and careers.
PSO3	Develop experimental and mathematics skills of students and enhance qualitative and quantitative reasoning
PSO4	Provide a foundation in Computational skill
PSO5	Develop awareness regarding the need for sustainable development

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
PH1CRT01: METHODOLOGY AND PERSPECTIVES OF PHYSICS	CO1	Understand the historical development of Physics and fundamental scientific concepts, and contributions of scientists
	CO2	Understand the concepts of different number systems and binary arithmetic operations
	CO3	Understand the concepts of vectors and its applications in Physics and analyze the coordinate systems
	CO4	Acquire the knowledge about various measuring devices and calculate errors in mathematical operations
PH1CMT02: PROPERTIES OF MATTER AND THERMODYNAMICS (Complementary)	CO1	Acquire a comprehensive understanding of properties of matter, Fluid dynamics and thermodynamics.
	CO2	Apply hooke's law to describe the linear relationship between stress and strain in elastic materials and calculate material properties
	CO3	Analyse fluid behavior using Bernoulli's theorem and explain the principles of fluid dynamics.
	CO4	Apply Maxwell's thermodynamic relations to analyse and solve complex Thermodynamic problems
	CO5	Apply the concepts to analyse and solve practical problems related to material behaviour, fluid flow and thermodynamic process

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
PH2CRT02: MECHANICS AND PROPERTIES OF MATTER	CO1	Acquire a comprehensive understanding of properties of matter and mechanics
	CO2	Apply hooke's law to describe the linear relationship between stress and strain in elastic materials and calculate material properties
	CO3	Analyse fluid behavior using Bernoulli's theorem and explain the principles of fluid dynamics.
	CO4	Determine moment of inertia of symmetrical rigid bodies

PH2CMT02: MECHANICS AND SUPERCONDUCTIVITY (Complementary)	CO1	Understand the basics of mechanics, velocity, acceleration, centripetal acceleration etc and determine acceleration due to gravity by experimental methods
	CO2	Determine moment of inertia of regular shaped bodies
	CO3	Understand simple harmonic oscillation and extent the concept to damped and forced oscillations- Learn theory of waves
	CO4	Understand the phenomena of superconductivity and its applications.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
PH3CRT03: OPTICS, LASER AND FIBER OPTICS	CO1	Understand the concepts of optics- interference, diffraction, polarisation and applications.
	CO2	Understand the properties of laser, working of different types of lasers like ruby Laser, He-Ne laser, semiconductor laser.
	CO3	Analyse the applications of optic fiber and laser in day to day life.
	CO4	Apply basic equations for problem solving
PH3CMT02: MODERN PHYSICS AND MAGNETISM (Complementary)	CO1	Understand radioactivity and apply the same for carbon dating.
	CO2	Understand the basics of Quantum Mechanics
	CO3	Understand the fundamentals of molecular spectroscopy
	CO4	Learn the basics of electronics - diode, transistor and its applications
	CO5	Understand the properties of magnetic materials and their classification

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
PH4CRT04: SEMICONDUCTOR PHYSICS	CO1	Understand the Physics behind Electronics
	CO2	Apply it for familiarizing semiconductors
	CO3	Apply the semiconductors for various application sich as amplifiers, Oscillators..etc.
	CO4	Apply the op-Amp for designing different circuits
	CO5	Understand the fundamentals of different types of modulations

PH4CMT02: OPTICS AND SOLID STATE PHYSICS (Complementary)	CO1	Understand optical phenomena and apply them for problem solving
	CO2	Understand the crystal structure
	CO3	Understand the concepts of optics- interference, diffraction, polarization, and applications.
	CO4	Differentiate between the working of different types of lasers like ruby Laser, He-Ne laser, and semiconductor laser.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
PH5CRT05: ELECTRICITY AND ELECTRODYNAMICS	CO1	Understand the fundamental concepts of Electricity and magnetism, including electric field, magnetic field, and their interplay
	CO2	Apply Gauss' Law to calculate electric flux and determine electric fields in different situations, including uniformly charged spherical conductors.
	CO3	Analyze magnetostatic phenomena and apply concepts such as magnetic field strength, magnetic flux, and Ampere's Law to solve magnetic field problems
	CO4	Understand the circuit theory and apply them to practical circuit analysis.
PH5CRT06: CLASSICAL AND QUANTUM MECHANICS	CO1	Familiarize and understand the formulations other than Newtonian in Classical Mechanics
	CO2	Understand the variational principle and apply it for the deduction of Lagrangian equation
	CO3	Understand the evolution of Quantum Mechanics
	CO4	Apply the theoretical concepts and evaluate problems
PH5CRT07: DIGITAL ELECTRONICS AND PROGRAMMING	CO1	Understand the basics of digital electronics
	CO2	Understand the basics of programming
	CO3	Write simple programs
PH5CRT08: ENVIRONMENTAL PHYSICS AND HUMAN RIGHTS	CO1	Understand the importance of water management and recognize the importance of water harvesting
	CO2	Analyse and evaluate the factors which causes negative impact on environment and Understand the concepts of waste minimization and resource conservation
	CO3	Understand the importance of renewable energy sources replacing non renewable sources
	CO4	Acquire the basic knowledge about the social norms that provide unity with environmental characteristics and create positive attitude about the environment

PH5OPT02: PHYSICS IN DAILY LIFE (Open Course)	CO1	Understand the Physics behind the phenomena around us
	CO2	Apply the basic ideas about viscosity and surface tension and relate to daily life activities
	CO3	Understand basic idea about the solar system

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
PH6CRT09: THERMAL AND STATISTICAL PHYSICS	CO1	Recall the basic ideas of Thermodynamics and understand the laws of thermodynamics
	CO2	Understand and investigate heat engines, their efficiency, and the principles of Carnot's ideal heat engine, as well as understand Carnot refrigerators and heat pumps.
	CO3	Apply Maxwell thermodynamic relations, TdS equations, and understand thermodynamic functions and third law of thermodynamics
	CO4	Distinguish statistical distributions to describe behaviour of particles in different physical systems
PH6CRT10: RELATIVITY AND SPECTROSCOPY	CO1	Understand the special theory of Relativity.
	CO2	Learn various atom models and spectroscopic studies based on the models
	CO3	Understand electronic, vibrational and rotational energy levels of molecules
PH6CRT11: NUCLEAR, PARTICLE AND ASTROPHYSICS	CO1	Understand the structure of nucleus , its properties and interaction
	CO2	Acquire idea about the working of particle accelerators and detectors
	CO3	Understand the phenomena of radioactivity and nuclear reactions
	CO4	Understand the origin and properties of cosmic rays
	CO5	Learn the concept of elementary particles and their classification
	CO6	Understand the origin and evolution of stars
PH6CRT12: SOLID STATE PHYSICS	CO1	Understand the crystalline materials
	CO2	Analyze the crystal structure
	CO3	Understanding the basic theory behind crystal formation and its properties
	CO4	Apply them to evaluate the crystal structure
	CO5	Understand dielectric and magnetic properties
PH6CBT03: COMPUTATIONAL PHYSICS	CO1	Understand the basics of numerical computation
	CO2	Apply numerical methods to solve problems in differentiation and integration
	CO3	Write the algorithm for problem solution

Practical Courses:

Semester I&II		
Course code and Title	**No.**	**Course Outcome**
PH2CRP01: MECHANICS AND PROPERTIES OF MATTER (Core)	CO1	Familiarize the measuring devices in the Physics lab and learn to take measurement with the same
	CO2	Determine the physical properties like acceleration due to gravity, moment of inertia, young's modulus etc
PH2CMP01: COMPLEMENTARY PHYSICS	CO1	Familiarize the measuring devices in the Physics lab and learn to take measurement with the same
	CO2	Determine the physical properties like acceleration due to gravity, moment of inertia, modulus of elasticity, refractive index, resistivity of wire etc.

Semester III& IV		
Course code and Title	**No.**	**Course Outcome**
PH4CRP02: OPTICS AND SEMICONDUCTOR PHYSICS (Core)	CO1	familiarize optical experiments like spectrometer, Newton's rings, Air wedge, liquid lens etc
	CO2	Construction and study of basic electronic circuits like rectifiers, wave shaping circuits etc.
	CO3	Characteristic study in advanced semiconductor Physics
COMPLEMENTARY PHYSICS PRACTICAL 2: PH4CMP02	CO1	Determine the Young's modulus and rigidity modulus of materials
	CO2	familiarize optical experiments like spectrometer, Newton's rings, Airwedge, liquid lens, Laser etc
	CO3	Understand the working of diode, rectifier, logic gates
	CO4	Determine magnetic parameters experimentally

Semester V&VI		
Course code and Title	**No.**	**Course Outcome**
PH6CRP03: ELECTRICITY, MAGNETISM AND LASER	CO1	familiarize optical experiments using lasers and optical fiber
	CO2	Determine magnetic parameters experimentally
	CO3	Construction and study of basic electric circuits
	CO4	Verify network theorems
PH6CRP04: DIGITAL ELECTRONICS	CO1	Verification of the truth table of basic and universal gates and theorems
	CO2	Construction and study of fundamental digital circuits
	CO3	Construction and study of basic electronic circuits

PH6CRP05: THERMAL PHYSICS, SPECTROSCOPY AND C++	CO1	Characteristic study of experiments in thermal physics
	CO2	Determination of Prism and grating parameters and study of Mercury spectra
	CO3	Write and execute C++ programs
PH6CRP06: ACOUSTICS, PHOTONICS AND ADVANCED SEMICONDUCTOR PHYSICS	CO1	Determine frequency of ac, frequency of tuning fork, velocity of sound
	CO2	Characteristic study in advanced semiconductor Physics
	CO3	Verification of electronic circuits

COMPLEMENTARY COURSES - Mathematics

COURSE OUTCOMES:

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
MM1CMT01: PARTIAL DIFFERENTIATION, MATRICES, TRIGNOMETRY AND NUMERICAL METHODS	CO1	To understand about functions of several variables and partial derivatives
	CO2	To identify the chain rules to find partial derivatives
	CO3	To identify and apply various methods to find the rank of a matrix and to solve a system of linear homogenous and Non homogenous equations
	CO4	To have an idea of Cayley- Hamilton theorem and apply it to various matrices

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
MM2CMT01: INTEGRAL CALCULUS AND DIFFERENTIAL EQUATIONS	CO1	To classify ordinary differential equations and understand different methods to solve them
	CO2	To study about surfaces and curves in three dimensions and about the origin of first and second order partial differential equations
	CO3	To identify linear equations of first order and to apply Lagrange's method to solve it.
	CO4	To understand how to find volumes using Cross-sections and volumes using Cylindrical shells

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
MM3CMT01: VECTOR CALCULUS, ANALYTIC GEOMETRY AND ABSTRACT ALGEBRA	CO1	To understand Vector valued functions and its applications
	CO2	To understand the application of integration in vector fields
	CO3	To understand Green's theorem , stokes theorem and Divergence theorem and its application
	CO4	To classify different conics and study its properties

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
MM4CMT01: FOURIER SERIES, LAPLACE TRANSFORMS AND COMPLEX ANALYSIS	CO1	To understand the basic concepts of Periodic functions, Trigonometric series and Fourier series and its application.
	CO2	To have a basic idea about power series and its application in solving differential equations
	CO3	To understand about Laplace transform and inverse Laplace transform.
	CO4	To identify different methods to find the Laplace transform of various functions

COMPLEMENTARY COURSES - ELECTRONICS

COURSE OUTCOMES:

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
ELCMT01: BASIC ELECTRONICS	CO1	To apply the knowledge of fundamental circuital laws and analyse the complex DC resistive networks using certain network theorems.
	CO2	To understand the the fundamental principles that govern the operational characteristics of Semiconductor devices.
	CO3	To understand the biasing, operation, and characteristics of typical semiconductor devices like diodes and transistors.
	CO4	To apply the concept of diode functionality as a switch in the operation of rectifier, wave shaping and voltage multiplier circuits.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
EL2CMT02:AMPLIFIERS, OSCILLATORS AND POWER ELECTRONICS	CO1	To analyse the overall performance characteristics of a single-stage transistor amplifier using voltage divider biasing.
	CO2	To understand different types of feedback mechanisms in amplifiers and apply these insights effectively to construct oscillators.
	CO3	To understand the physical construction, operation and key characteristics of junction field effect transistors.
	CO4	To understand the basic principles and characteristics of diverse power electronic devices.

EL2CMP01: ELECTRONICS PRACTICALS – I	CO1	To understand the essential operations of various electronic testing and measurement equipments
	CO2	To analyze the characteristics and behavior of different semiconductor devices.
	CO3	To design and analyse electronic circuits employing transistors and diodes tailored for specific applications.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
EL3CMT03: OPERATIONAL AMPLIFIERS, COMMUNICATION ELECTRONICS AND INTEGRATED CIRCUITS	CO1	To understand the fundamentals of operational amplifiers and analyze commonly used operational amplifier circuit configurations.
	CO2	To understand the fundamental concepts governing different electronic communication systems.
	CO3	To understand the various steps involved in the fabrication process of integrated circuits.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
EL4CMT04: DIGITAL ELECTRONICS	CO1	To understand the underlying features of different number systems and their interconversions.
	CO2	To apply Boolean algebra theorems, postulates, and Karnaugh map techniques for the minimization of complex logical expressions.
	CO3	To design both synchronous and asynchronous sequential circuits using different types of flip-flops.
	CO4	To understand the essential blocks that form the basis of Python programming.
EL4CMP02: ELECTRONICS PRACTICALS – II	CO1	To design and analyse operational amplifier (Op-amp) circuits for specific applications.
	CO2	To construct and verify combinational and sequential circuits using digital integrated ICs.
	CO3	To apply Python programming skills to perform specific tasks

M.Sc Physics (SF)

PROGRAMME : Master of Science

PROGRAMME SPECIFIC OUTCOMES: M.Sc Physics

PSO Number	PSO Statement
PSO1	Providing an in-depth knowledge of Physics to the student.
PSO2	Pursuing research in theoretical/ experimental physics or related areas.
PSO3	Acquiring a thorough understanding of the fundamentals of Physics so as to select an academic career in secondary or tertiary level.
PSO4	Enhancing the employability of the student.
PSO5	Through the research oriented project, an M.Sc. student should be capable of doing research at least in the preliminary way.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
PH010101: MATHEMATICAL METHODS IN PHYSICS	CO1	To study vectors, their applications and physical interpretations
	CO2	To understand the different coordinate systems and the Linear vector space
	CO3	To learn matrix calculations and its applications
	CO4	To familiarize tensors and its applications
PH010102: CLASSICAL MECHANICS	CO1	To understand the fundamental concepts of the Lagrangian and the Hamiltonian methods
	CO2	To discuss the physics of small oscillations and the concepts of canonical transformations and Poisson brackets
	CO3	To develop the basic ideas of central forces and rigid body dynamics
	CO4	To understand the Hamilton-Jacobi method and the concept of action-angle variables and the Lagrangian formulation of relativistic mechanics.
PH010103: ELECTRODYNAMICS	CO1	To impart proper understanding of electricity, magnetism and electrodynamics.
	CO2	To understand wave nature of electromagnetic field and its properties
	CO3	To discuss electromagnetic field radiating out of accelerated charges.
	CO4	To understand the impact of relativity in electromagnetism along with confined propagation of electromagnetic wave.
PH010104: ELECTRONICS	CO1	To study the flow of charge (electron) through various materials and devices such as semiconductors, resistors, inductors, capacitors, nanostructures etc.

	CO2	To understand the operational amplifiers (Op-amps), their characteristics with and without feedback.
	CO3	To discuss general linear applications, filters, oscillators and their frequency responses
	CO4	To familiarize analog communication
PH010105: GENERAL PHYSICS PRACTICAL	CO1	To develop practical skills in experimental Physics
	CO2	To apply the theoretical knowledge to practical situations
	CO3	To verify laws and equations in Physics
	CO4	To get a first-hand experience on advanced experimental devices

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
PH010201: MATHEMATICAL METHODS IN PHYSICS – II	CO1	To understand the concepts of Laplace and Fourier transforms.
	CO2	To Introduce the Fourier series and its application to solutions of partial differential equations.
	CO3	To familiarize complex space and variables.
	CO4	To understand special functions like Gamma, Beta and differential equations like Bessel, Legendre, Hermite, Laguerre, etc.
PH010202: QUANTUM MECHANICS-I	CO1	To develop the basic structure of quantum Mechanics.
	CO2	To understand the fundamental concepts of the Dirac formalism
	CO3	To understand how quantum systems evolve in time
	CO4	To understand the basics of the quantum theory of angular momentum and to enable the student to solve the hydrogen atom problem which is a prelude to more complicated problems in quantum mechanics.
PH010203 : STATISTICAL MECHANICS	CO1	To discuss statistical foundations of physical problems
	CO2	To develop ideas about ensembles and their physical interpretations.

	CO3	To solve various statistical problems using mathematical tools.
	CO4	To interpret quantum mechanical problems using statistical methods.
PH010204: CONDENSED MATTER PHYSICS	CO1	To develop ideas about working principles of XRD
	CO2	To discuss various crystal structure and symmetry properties
	CO3	To understand thermal, electric and magnetic properties of semiconductor materials.
	CO4	To solve physical problems on condensed matter properties
PH010205: ELECTRONICS PRACTICAL	CO1	To get basic theoretical and experimental knowledge in electronic circuits like multivibrators, integrators, etc.
	CO2	To achieve practical efficiency in circuit connection and circuit analysis.
	CO3	To familiarize various amplifier circuits with and without feedback.
	CO4	To design and implement electronic circuits.

SEMESTER III

Course code and Title	No.	Course Outcome
PH010301 : QUANTUM MECHANICS-II	CO1	To understand the different stationary state approximation methods and be able to apply them to various quantum systems
	CO2	To understand the basics of time-dependent perturbation theory and its application to semi-classical theory of atom-radiation interaction
	CO3	To understand the theory of identical particles and its application to helium
	CO4	To understand the idea of Born approximation and the method of partial waves and to introduce the student to the basic concepts of relativistic quantum mechanics.
PH010302 : COMPUTATIONAL PHYSICS	CO1	To help the students to have the basic idea about the techniques used in Physics
	CO2	To solve problems with the help of computers when they cannot be solved analytically with pencil and paper since the underlying physical system is very complex
	CO3	To solve physical problems using computational methods in manual formats
	CO4	To develop their own Algorithms of every method described in the syllabus.
PH010303 : ATOMIC AND MOLECULAR PHYSICS	CO1	To equip the student with the understanding of atomic structure and spectra of typical one- electron and two-electron systems
	CO2	To understand the theory of microwave and infra-red spectroscopy as well as the electronic spectroscopy of molecules
	CO3	To understand the basics of Raman spectroscopy and the nonlinear Raman effects

	CO4	To understand the spin resonance spectroscopies such as NMR, ESR and the ideas of Mossbauer spectroscopy
PH800301: DIGITAL SIGNAL PROCESSING	CO1	To study about discrete time systems
	CO2	To learn about FFT
	CO3	To understand Z- Transforms
	CO4	To study the design techniques for FIR and IIR digital filters
PH010402: COMPUTATIONAL PHYSICS PRACTICALS	CO1	To develop algorithm / Flowchart for all experiments
	CO2	To design and develop C++ programs for computational problems.
	CO3	To develop analytical and logical skills for program writing
	CO4	To verify results of programs with conventional methods.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
PH010401: NUCLEAR AND PARTICLE PHYSICS	CO1	To know about the basic properties of the nucleus and the nuclear forces.
	CO2	To understand major models of the nucleus and the theory behind the nuclear decay process;
	CO3	To develop ideas on the interaction between elementary particles and the conservation laws in particle physics
	CO4	To develop ideas about Nuclear Astrophysics and the practical applications of nuclear physics
PH800402: MICROELECTRONICS AND SEMICONDUCTOR DEVICES	CO1	To expose the students to the architecture and instruction set of basic microprocessors.
	CO2	To familiarize a few Microprocessors and Microcontrollers.
	CO3	To understand the fundamentals of Semiconductor devices and their processing steps in detail.
	CO4	To apply the knowledge of semiconductor fabrication processes to work in industry in the area of semiconductor devices.
PH800403: COMMUNICATION SYSTEMS	CO1	To understand the basic concepts of different communication systems.
	CO2	To develop ideas about Mobile communication and Satellite Communication.
	CO3	To understand various principles of Fiber Optic Communication.
	CO4	To familiarize the principles and fundamentals of Radar communication.

PH800302: ADVANCED PRACTICALS IN ELECTRONICS	CO1	To develop programs for Microprocessors and Micro Controllers
	CO2	To do experiments in Communication Electronics
	CO3	To practice Electronic Instrumentation experiments
	CO4	To do Optoelectronics experiments
PH010403 : PROJECT	CO1	To create research aptitude
	CO2	To apply their theoretical knowledge through various experimental techniques
	CO3	To familiarize with various devices and techniques in Physics
	CO4	To enlarge the scope of Physics as an applied field for the development of the society.

DEPARTMENT OF CHEMISTRY

PROGRAMME : Bachelor of Science

PROGRAMME SPECIFIC OUTCOMES: B.Sc Chemistry

PSO Number	PSO Statement
PSO1	Profound Understanding of Chemical Fundamentals
PSO2	Application Proficiency of Chemical Principles
PSO3	Appreciation for Chemical Achievements
PSO4	Recognition of Chemistry's Role in Nature and Society
PSO5	Enhanced Problem-Solving Skills

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
CH1CRT01: GENERAL AND ANALYTICAL CHEMISTRY	CO1	To develop scientific temper in students
	CO2	To explicate the scope and role of chemistry
	CO3	To understand the modern periodic table and the periodic properties
	CO4	Learn the evaluation of analytical data and how to present a data after analysis.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
CH2CRT02: THEORETICAL AND INORGANIC CHEMISTRY	CO1	Understand the structure of atom using the concepts of quantum mechanics and classical mechanics
	CO2	Gain the concept of various types of chemical bonds
	CO3	To learn the various theories of bonding
	CO4	To know about the of s and p-block elements.
CH2CMT02: BASIC ORGANIC CHEMISTRY	CO1	Draw the optical and geometric isomers of various organic compounds
	CO2	Predict the structure and stability of various reaction intermediates.
	CO3	Explain various electronic displacements and type of organic reactions:
	CO4	Explain the synthesis and properties of natural and synthetic polymers

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
CH3CRT03: ORGANIC CHEMISTRY -I	CO1	To identify different types of electronic displacement
	CO2	To learn the concepts of Stereochemistry and conformational analysis
	CO3	To understand about the formation and stability of reaction intermediates and their behavior
	CO4	To explain the chemistry of alkanes, alkenes, and alkynes with their preparation, properties and uses.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
CH4CRT04: ORGANIC CHEMISTRY-II	CO1	Exemplify various name reactions in organic chemistry
	CO2	Learn the chemistry of hydroxyl compounds, aldehydes, ketones , carboxylic acids and their derivatives
	CO3	Learn about different types of solutions, electrical conductance, Electromotive force.
	CO4	To understand the concepts of photochemistry and group theory
CH4CMT06: ADVANCED BIO-ORGANIC CHEMISTRY	CO1	Describe the chemistry, structure and functions of different natural products like terpenoids, alkaloids and carbohydrate.
	CO2	Differentiate the functions of nucleic acids and enzymes
	CO3	Explain the functions of amino acids and proteins.
	CO4	Describe the structure and functions of vitamins, lipids and steroids

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
CH5CRT05: ENVIRONMENTAL STUDIES AND HUMAN RIGHTS	CO1	Examine various social issues affecting the environment
	CO2	To learn about green chemistry and its necessity
	CO3	Explain the principal and aim of green chemistry.
	CO4	To understand the concept of radioactivity nuclear reactions

CH5CRT06: ORGANIC CHEMISTRY-III	CO1	Become aware of how chemical processes can be designed, developed and run in a sustainable way.
	CO2	Discuss the preparation and reactions of various nitro containing compounds
	CO3	Learn the preparation and reactions of active methylene compounds which is industrially significant
	CO4	To describe the structure ,reactions, properties of various types of carbohydrates.
CH5CRT07: PHYSICAL CHEMISTRY-I	CO1	To explain the behaviour of real and ideal gas and perform calculations related to it
	CO2	To explain the kinetic theory of gases and other gas laws
	CO3	Explain the properties of liquids.
	CO4	To describe condition required for liquefaction of gases.
CH5CRT08: PHYSICAL CHEMISTRY-II	CO1	Retrieve information about classical mechanics and its failure
	CO2	Analyse the concept and principles of quantum mechanics
	CO3	Learn in detail about the nature of light and its interaction with matter.
	CO4	Explain various types of molecular spectroscopic techniques
CH5OPT01: CHEMISTRY IN EVERYDAY LIFE (Open Course)	CO1	Review the effects of food additives
	CO2	Gather information on cosmetics, its general formulations and effects on the body 3
	CO3	Summarize on the plastics, papers and dyes in day to day life and its environmental impact
	CO4	Highlight the role of chemistry in agricultural field

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
CH6CRT09: INORGANIC CHEMISTRY	CO1	Master the concept of coordination chemistry
	CO2	Distinguish the crystal field splitting pattern in coordination compounds.
	CO3	Apply coordination chemistry in qualitative and quantitative analysis of certain metal ions.

	CO4	Describe the structure and bonding in selected organometallic compounds.
	CO1	Learn the chemistry of terpenoids and alkaloids
	CO2	Distinguish between different types of vitamins, steroids and hormones
	CO3	Describe structure and functions of different natural products like carbohydrates and amino acids.
	CO4	Breakdown the concept of enzymes, aminoacids, proteins and nucleic acids
CH6CRT11: PHYSICAL CHEMISTRY-III	CO1	Study the interrelation of heat and work with chemical or physical changes within the confines of the laws of thermodynamics.
	CO2	Demonstrate the application of chemical equilibrium.
	CO3	Explain various concepts in phase equilibria.
	CO4	Discuss the kinetics of reaction
CH6CRT12: PHYSICAL CHEMISTRY – IV	CO1	Explain the classification of solution based on miscibility
	CO2	Summarize and solve numerical problems related to colligative properties
	CO3	Describe the various aspects of electrolytic conductance
	CO4	Explain electrochemical cells, concentration cells and their applications
CH6CBT01: POLYMER CHEMISTRY	CO1	To learn about the history, classification and functionality of polymeric materials.
	CO2	To know about the kinetics of polymerization, details on crystallization and morphology of crystalline polymers, determination of crystalline melting point of a crystalline material and the factors effecting crystalline melting point.
	CO3	To understand the nature and structure of polymers, determination of molecular weight of polymers and thermodynamics of polymer solution.
	CO4	To study the preparation, structure, properties and application of different types of addition and condensation polymers.

DEPARTMENT OF FOOD SCIENCE AND QUALITY CONTROL

PROGRAMME : Bachelor of Science

PROGRAMME SPECIFIC OUTCOMES: B.Sc Food Science and Quality Control

PSO No.	PSO Statement
PSO1	Acquire knowledge to develop new Product formulation through Research and Development.
PSO2	Basic understanding about the role of sensory organs to analyze the quality attributes of foods.
PSO3	To become expertise in laboratory experimentation and gain practical knowledge.
PSO4	Basic level of understanding to maintain the quality and safety of food product, enforcement of Food laws and entrepreneurial skill to make them self-employed.
PSO5	Develop practical and theoretical training on food processing, designing and maintenance of food machineries, and also evaluate the importance of packaging materials to preserve the nutritional aspects of foods.
PSO6	To analyze the effects of adulterants and toxicants to the wellness of human beings, stability of environment etc. and also to identify how various processing techniques influences the nutritional as well as sensory properties of foods.
PSO7	Evaluate the way in which improper handling storage condition, inadequate personal hygiene and sanitation affects the wholesomeness of food.
PSO8	Analyze the significance of nutrients in physical growth and awareness about the lethal effects of deficiency of nutrients.
PSO9	Acquire skills to identify and handle microorganisms in foods and their drastic effect on human beings.
PSO10	Basic understanding about challenges faced due to over exploitation of natural resources, identify the need for the sustainable development and awareness about the Human Rights.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
FS1CRT01: BASIC NUTRITION	CO1	Understand the importance of food nutrients to the well beings of human beings.
	CO2	Describe the causes of malnutrition and its adverse effect on health and the impacts occurred in society.
	CO3	Evaluate the nutritional requirements needed for each age group.
	CO4	Analyze the significance of various food nutrients in the physical and intellectual growth of children.
FS1CRT02: BASIC FOOD CHEMISTRY	CO1	Describe the basic proximate composition of foods.
	CO2	Explain classification and kinetics of enzyme action and its uses in food industry.
	CO3	Describe the structure and chemical reactions of food constituents.
	CO4	Evaluate the structural properties of water and describe how water activity affects the quality and stability of food.
FS1CRT03: METHODOLOGY IN THE DISCIPLINE OF FOOD SCIENCE	CO1	Analyze the relevance of Research in the field of Food Science.
	CO2	Development of new product formulation and enhancing entrepreneur skills.
	CO3	Understand the basic methods adopted for the formulation of hypothesis and designing of experiment.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
FS2CRT04: FOOD COMMODITIES	CO1	Understand about the composition of food commodities and their nutritional aspects.
	CO2	Describe the stages involved in processing of raw food into an edible form and enable to analyze how various processing methods modify the nutritional value of foods.
	CO3	Enable to develop a new food formulation by studying nutritional quality of food.
	CO4	Understand the pros and cons of traditional and convenience foods.
FS2CRT05: FOOD PRESERVATION	CO1	Understanding the objectives and importance of food preservation.
	CO2	Recognize the effect of preservation technique on the composition of food.
	CO3	Identification of sources of food spoilage and the impact of food spoilage caused on the food supply system.
	CO4	Analyze the food products preserved by microwave heating, irradiation etc. has any adverse effect on human beings.
	CO5	Understanding the necessity of preserving food for the future in order to thrive food scarcity due to increase in population rate and decrease in agricultural production.
FS2CRT06: FOOD MICROBIOLOGY, SANITATION AND HYGIENE	CO1	Acquire knowledge about the structure and growth kinetics of microorganisms and understand about the benefits of microorganism in food production sector.
	CO2	Describe proper sanitation and personal hygienic practices to be followed in the food industry.
	CO3	Basic understanding about the causes and lethal effects of food borne illness on human beings and identification of various methods to be adopted to prevent food poisoning.
	CO4	Interpret the effectiveness of cleaning compounds and detergents in the destruction of microorganisms.
	CO5	Identification of sources of contamination of food products and suggest the ways to prevent it.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
FS3CRT08: PROCESSING TECHNOLOGY OF ANIMALS FOODS	CO1	Enable to understand how to convert raw animal food into an edible processed form.
	CO2	Evaluate the importance of post-harvest technology to conserve food.
	CO3	Describe various processing methods of milk and their nutritional aspects provided to human beings.
	CO4	Basic understanding about the correlation of storage condition and shelf span of foods.
	CO5	Analyze the effect of processing techniques on the basic composition of food.
FS3CRT09: SENSORY EVALUATION	CO1	Recognize and familiarize with the practical skills of sensory evaluation techniques and able to identify the sensory properties of foods and thereby evaluate its consumer acceptance.
	CO2	Describe the sensory characteristics of foods.
	CO3	Illustrate about the practical requirements and laboratory requirements needed for sensory test.
	CO4	Evaluation of the measurements to be taken for the sample preparation in order to maintain a good quality attribute
FS3CRT10: FOOD PACKAGING MATERIALS AND TESTING	CO1	To familiarize with different types of packaging materials and its technology involved in it's processing.
	CO2	Interpret the interaction between the packaging material and the composition of foods and also evaluate how they influence the shelf span of food.
	CO3	Describe the modern concept of food packaging technology and analyze the way in which it supports the busy schedule of human life.
	CO4	Illustrate the quality testing methods of various packaging materials.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
FS4CRT11: PROCESSING TECHNOLOGY OF PLANT FOODS	CO1	Enable to understand the nutritive value and health benefits of plant foods.
	CO2	Apply knowledge for the development of value-added plant-based foods.
	CO3	Evaluate the effect of processing methods for the production of safe foods and thereby extend of shelf-life of foods.
	CO4	Develop modern aspects of processing technology to produce convenience foods such as Ready to serve and Ready to eat foods in order to make the busy schedule of human life easier.
FS4CRT12: ANALYTICAL INSTRUMENTATION	CO1	Acquire knowledge about various scientific methods for the biochemical assay of food.
	CO2	Illustrate various instrumentation techniques to detect the adulterants found in food.

	CO3	Familiarize with the applications of various bio-chemical catalyst in food industry and their benefits to the food sector.
	CO4	Interpret the proximate composition of foods.
	CO5	To develop new aspects of instruments for the analysis of food components.
FS4CRT13: FOOD SAFETY AND QUALITY ASSURANCE	CO1	Basic understanding about the quality standards and safety measures to be adopted in food companies for the production of safe and wholesome food.
	CO2	To gain knowledge on the Standards and Specifications in food industry for the effective total quality assurance.
	CO3	Enable to detect types of hazards and how they affect the safety of consumers. Also analyze the practical measure to eliminate them from foods.
	CO4	Monitoring the effectiveness of food safety and quality assurance system across the farm to the hands of consumer.
	CO5	Evaluate the significance and need for an external quality control board to ensure the implementation of total quality management system in food sector.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
FS5CRT15: FOOD ANALYSIS (THEORY)	CO1	Understand principles and proximate composition of foods by Official methods of AOAC.
	CO2	Describe sampling and its types. Evaluate how the selection of proper sampling techniques influence analysis of food.
	CO3	To familiarize with modern instrumentation techniques for the analysis of physical and chemical properties of foods.
	CO4	Illustrate the application and future scope of food analysis.
FS5CRT16: FOOD TOXICOLOGY	CO1	Understand the relevance of toxicology in the food production sector.
	CO2	To detect the presence of natural toxicants in plant and animal-based foods and evaluate the lethal effects caused to the human life.
	CO3	Explain how to eliminate the toxicants in foods by processing methods and thereby ensuring the supply of wholesome food to the consumers.
	CO4	Illustrate the pathway of entrance of chemical pesticide residues and heavy metals into the agricultural products and the lethal effects caused on public health.
	CO5	To acquire knowledge on how food additives enhance the physical and chemical quality attributes of foods and their negative impact on human health.
FS5CRT17: ENVIRONMENTAL STUDIES AND HUMAN RIGHTS	CO1	A general awareness about the natural resources and understanding the relevance of natural resources in sustaining human life.
	CO2	Explain the challenges faced by the humans due to the over exploitation of natural resources and find out the remedial measures.
	CO3	Understand the basic concepts of ecological process and examine how the ecosystem supports the life system.

	CO4	Evaluate the role of environmental pollution to cause natural disasters like flood, earthquake, landslides, glacier melting etc.
	CO5	Awareness about the Environment and Human Rights.
FS5OPT18: FOOD FACTS AND PRINCIPLES	CO1	Analyze the relevance of food preservation and find out the changes brought by them on nutritional status of food products.
	CO2	Elucidate the significance of functional foods.
	CO3	To familiarize with the method to detect food adulterants.
FS5CRP21: BASIC MICROBIOLOGY - PRACTICAL	CO1	Basic understanding about the laboratory practices and equipment in the Microbiology laboratory.
	CO2	To familiarize with the identification and characterization of microorganism from the given sample by staining techniques.
	CO3	Basic knowledge about the working principle of microbiology laboratory apparatus.
FS5CRP22: FOOD ANALYSIS AND ADULTERATION TESTING- PRACTICAL	CO1	Basic understanding about the laboratory equipment and apparatus used for the analysis of food sample.
	CO2	Identify various techniques to find out composition and chemical properties of food products.
	CO3	Estimation of quality attributes of food sample by qualitative test.
	CO4	Enable to detect the presence of adulterant in food products.
FS5CRP23: FOOD CHEMISTRY- PRACTICAL	CO1	Understand diverse chromatographic techniques employed for the identification of the components for quantitative and qualitative analysis.
	CO2	To familiarize with the techniques for the estimation of hardness of water.
	CO3	Understand the quality assessment of fat in food products by the estimation of quality parameter.

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
FS6CRT24: ENTREPRENEURSHIP DEVELOPMENT & MANAGEMENT IN FOOD INDUSTRY	CO1	Development of innovative ideas and entrepreneurship among the students.
	CO2	Basic understanding of the ideas to be implemented to start-up a new venture and how to run the firm successfully.
	CO3	Analyze the problems and needs of customer and develop a product /service which is worth for the customer.
	CO4	Understand the significance of proper planning, adoption and implementation of rules and regulations.
	CO5	Awareness about the necessity of team work, interaction between employees and management representatives in order to find out the needs and suggestions from them.
	CO6	Understand how to survive competition from other business organization and to secure their own business.

	CO7	Understand the need of regular research work and update the business according to the changing society.
FS6CRT25: FOOD ADULTERATION AND TESTING	CO1	Understand the lethal effects caused by the presence of adulterants in food.
	CO2	Awareness about the critical level of metals and other adulterants in food samples.
	CO3	To familiarize with various food additives and understand how it improves the quality attributes of food.
	CO4	Analyze whether the interaction of food additives with the chemical composition of food causes any changes to the nutritive value.
FS6CBT26: COCONUT AND BEVERAGE TECHNOLOGY	CO1	To familiarize with value-added coconut products and its processing techniques and also review the arising employment opportunities of students in coconut industry.
	CO2	Discover new methodologies to preserve some seasonal fruits for the future.
	CO3	Generalize the significance of post-harvest technology of fruits, their nutritional factors and health benefits.
	CO4	To enable the study of processing technology of alcoholic beverages.
FS6CRP29: ADVANCED FOOD MICROBIOLOGY-PRACTICAL	CO1	Examine the micro flora in various food samples.
	CO2	Acquiring practical skills in isolation and enumeration of pure colonies.
	CO3	Understanding about the quantitative and qualitative analysis of milk sample.
	CO4	To evaluate the quality of water.
FS6CRP30: FOOD ANALYSIS & ADULTERATION TESTING-PRACTICAL	CO1	To analyze the proximate composition of various food products.
	CO2	To familiarize with the methods used to detect adulterant in food sample.
	CO3	Analyze how the human sensory organs are important in assessing the primary quality attributes of foods.
	CO4	To gain practical skills to identify sensory characteristics of food.
FS6CRP31: ADVANCED FOOD CHEMISTRY PRACTICAL	CO1	Estimation of the chemical composition of food samples
	CO2	To familiarize with various methods to estimate the protein content.
	CO3	To understand about the recent chemical analysis procedures

DEPARTMENT OF ECONOMICS

PROGRAMME: Bachelor of Arts

PROGRAMME SPECIFIC OUTCOMES: BA Economics

PSO No.	PSO Statement
PSO1	Understand the concepts and theories of microeconomics, macroeconomics, public economics and International economics and apply its knowledge elements for analyzing elasticity, market ,multiplier, budget ,tax system ,rate of exchange ,balance of payment ,International monetary system etc
PSO2	Understand the various statistical and econometric tools and techniques and apply its knowledge elements in undertaking Research Projects.
PSO3	Formulate the ability to use the quantitative and theoretical aspects of Economics of Growth and Development for analysing various economic issues of Third World Countries.
PSO4	Understand the conceptual and theoretical foundations of environmental economics, equipping students with economic methods and tools to analyse basic environmental issues and apply the knowledge to conserve the environment
PSO5	Acquaint with basic concept and issues of monetary analysis and financial marketing in Indian financial markets.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
EC1CRT01: PERSPECTIVES AND METHODOLOGY OF ECONOMICS	CO1	Understand the basic concepts in economics and related disciplines
	CO2	Familiarise with important research techniques and tools
	CO3	Understand the role of economics among other social sciences
	CO4	Comprehend on the basic postulates of different schools of economic thought

SEMESTER I (Complementary)		
Course code and Title	**No.**	**Course Outcome**
HY1CMT01: ROOTS OF THE MODERN WORLD	CO1	Recognize the division of the world into ancient, medieval and modern
	CO2	Describe the socio-political and economic changes in the world through ages
	CO3	Explain the basic concepts of historical aspects with theoretical framework.
	CO4	Discuss the progressive ideas like Renaissance, Reformation, Enlightenment etc.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
EC2CRT02: MICRO ECONOMIC ANALYSIS 1	CO1	Understand the basic economic concepts in micro economics
	CO2	Analyze various aspect of consumer behavior.
	CO3	Apply the concepts of utility, elasticity in real life situation.
	CO4	Acquire skill in predicting economic problems using micro economic tools.

SEMESTER II (Complementary)		
Course code and Title	**No.**	**Course Outcome**
HY2CMT03: TRANSITION TO THE CONTEMPORARY WORLD	CO1	Recognize the changes happened to the world in the colonial, imperialistic age
	CO2	Explain the unification process of Italy and Germany in the 19th century Europe
	CO3	Describe the causes of the two world wars and its universal impacts.
	CO4	Discuss the destructive ideologies like Nazism, Fascism, dictatorship and the threats and dangers of rigid nationalism.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
EC5CRT03: MICRO ECONOMIC ANALYSIS II	CO1	Analyse the behaviour of firms in different market structures
	CO2	Evaluate the criteria for attaining general economic welfare
	CO3	Understand the modern theories of pricing
	CO4	Evaluate the different theories of income distributions

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
EC3CRT04: ECONOMICS OF GROWTH AND DEVELOPMENT	CO1	Compare various indicators of development
	CO2	Interpret the theories of development and assess on its relevance today
	CO3	Identify the major issues in development
	CO4	Analyze the technique used to measure social issues like inequality, poverty etc.

SEMESTER III (Complementary)		
Course code and Title	**No.**	**Course Outcome**
PS3CMT01: AN INTRODUCTION TO POLITICAL SCIENCE	CO1	Understand the historical-analytical framework of the discipline and various approaches
	CO2	Analyse the concept of state and various theories regarding the origin of State.
	CO3	Evaluate the important ideologies in politics and its relevance.
	CO4	Understand the basic concepts of Liberty, Equality, Rights, Law and Justice.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
EC4CRT05: MACROECONOMICS I	CO1	Describe the classical economic thought.
	CO2	Analyse the Keynesian economic ideology.
	CO3	Explain core concepts in economic analysis
	CO4	Illustrate national income accounting in India
EC4CRT06: PUBLIC ECONOMICS	CO1	Evaluate the effectiveness of fiscal policy.
	CO2	Critically analyse the central- state relationship.
	CO3	Understand the working of local administration
	CO4	Understand the different facets of government budget

SEMESTER IV (Complementary)		
PS4CMT04: RIGHTS AND HUMAN RIGHTS IN INDIA	CO1	Develops a comprehensive knowledge of the concept of Human Rights.
	CO2	Facilitate the learner's understanding of the origin and history of human rights and approaches to Human Rights.
	CO3	Develops a comprehensive knowledge of the three generations of Human Rights as well as international covenants to safeguard and promote human rights.
	CO4	Understand Human Rights in India with special reference to Constitutional provisions and institutions.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
EC5CRT07: QUANTITATIVE TECHNIQUES	CO1	Analyse economic facts in a mathematical format
	CO2	Understand the basic statistical concepts
	CO3	Evaluate the practicability of an investment decision
	CO4	Understand graphical analysis in economic theories
EC5CRT08: MACRO ECONOMICS II	CO1	Evaluate the effectiveness of fiscal & monetary policies
	CO2	Understand the recent trends in Macroeconomics

	CO3	Understanding the economic fluctuations
	CO4	Analyse the impact of price changes on the economy
EC5CRT09: ENVIRONMENTAL ECONOMICS	CO1	Analyze the relationship between economics and environment through models and theories
	CO2	Identify the major environmental issues and suggest remedies
	CO3	Evaluate development approaches from an environment perspective
	CO4	Build environment consciousness and sustainable development approach
EC5CRT10: INTRODUCTORY ECONOMETRICS	CO1	Understand the basic concepts of econometrics
	CO2	Understand the importance of econometrics in solving economic problems
	CO3	Understand the tool of regression
	CO4	Understand the methods of hypothesis testing

SEMESTER V (Open Courses)		
C5OPT01: FUNDAMENTALS OF ECONOMICS	CO1	Understand the basic concepts in Micro and Macroeconomics
	CO2	Evaluate the actions of government authorities
	CO3	Understand the role of banking institutions
	CO4	Understand the international trade relations of the country
PS5OPT04: HUMAN RIGHTS IN INDIA	CO1	Develops a comprehensive knowledge of the concept of Human Rights.
	CO2	Facilitate the learner's understanding of the origin and history of human rights and approaches to Human Rights.
	CO3	Develops a comprehensive knowledge of the three generations of Human Rights as well as international covenants to safeguard and promote human rights.
	CO4	Understand Human Rights in India with special reference to Constitutional provisions and institutional mechanisms.
HY5OCT01: INTRODUCING ENVIRONMENTAL HISTORY	CO1	Define the concepts regarding environmental studies and its interdisciplinary approach and the role of UNO in the preservation of the Earth.
	CO2	Explain the exploitation of the earth in different stages of human life from various stone ages to the industrial age.
	CO3	Describe the degeneration of Indian forest wealth after British colonization

	CO4	Discuss the felling of trees by the British and the beginning of enactments.

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
EC6CRT11: QUANTITATIVE METHODS	CO1	Apply the measures of central tendencies while studying economic issues.
	CO2	Understand the different methods of dispersion to do economic research
	CO3	Analyse the data collected with the aid of various statistical tools
	CO4	Evaluate and interpret the result of empirical data
EC6CRT12: INTERNATIONAL ECONOMICS	CO1	Analyze different theories of international trade and comment on its relevance today
	CO2	Application of the international economic concept in contemporary times
	CO3	Decipher the trade relation between countries
	CO4	Explain international monetary institution and its importance
EC6CRT13: MONEY AND FINANCIAL MARKETS	CO1	List different components of financial markets
	CO2	Explain the working of financial markets
	CO3	Illustrate the working of banking systems in our country
	CO4	Distinguish between different types of financial instruments
EC6CRT14: INDIAN ECONOMY	CO1	Analyze Indian economy development from post independence period
	CO2	Identify the major developmental issues prevailing in Indian economy
	CO3	Understand the basic economic concepts in Indian economy
	CO4	Examine Kerala model of development, analyze growth pattern and contemporary issues
EC6CBT02: BUSINESS ECONOMICS	CO1	Understand the role of demand analysis and forecasting
	CO2	Comprehend on the basic postulates of different schools of economic thought
	CO3	Familiarise with important forecasting techniques and tools
	CO4	Understand the concepts of production and costs.
EC6PR01: PROJECT	CO1	Understand the basic concepts of research methods
	CO2	Application of quantitative methods to economic problems
	CO3	Application of economic theory to a given problem.
	CO4	Familiarise with local economic problems.

DEPARTMENT OF LANGUAGES (AIDED)

ENGLISH

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
EN1CC01: FINE TUNE YOUR ENGLISH COURSE CODE	CO1	Facilitate students in proficiently employing English for formal communication purposes.
	CO2	Enable students to aptly utilize English in both written and oral forms with accuracy and precision
	CO3	Assist students in mastering the art of composing application letters, resumes, and excelling in interviews related to career presentations, demonstrating competency in professional communication
EN1CC02: PEARLS FROM DEEP COURSE CODE	CO1	Explore various literary genres in English literature, allowing students to delve deep into diverse literary works to broaden their understanding and appreciation
	CO2	Equip readers with the ability to comprehend and analyze narratives, especially novels, fostering their skills in understanding and interpreting complex storytelling structures
	CO3	Develop students' technical proficiency in understanding drama elements such as tone, rhythm, and dialogue, enhancing their language skills and appreciation for dramatic literature.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
EN2CC03: ISSUES THAT MATTER COURSE CODE	CO1	Identify and comprehend significant contemporary issues affecting society.
	CO2	Develop students' ability to construct positive and logical responses to the identified issues
	CO3	Internalize values through the analysis and engagement with selected literary works.
EN2CC04: SAVOURING THE CLASSICS COURSE CODE	CO1	Explore and analyze classic literary works from diverse cultural backgrounds.
	CO2	Evaluate and comprehend the distinctive features contributing to the creation of classic literature.

	SEMESTER III	
Course code and Title	**No.**	**Course Outcome**
EN3CC05: LITERATURE AND/AS IDENTITY	CO1	Analyze and interpret the intricate representation of indigenous and diasporic identities within literature.
	CO2	Evaluate and comprehend the conflicts and complexities in South Asian regional identities depicted in literature

EN3CCT07: GEMS OF IMAGINATION	CO1	Explore various literary genres in English literature, allowing students to delve deep into diverse literary works to broaden their understanding and appreciation
	CO2	Equip readers with the ability to comprehend and analyze narratives, especially novels, fostering their skills in understanding and interpreting complex storytelling structures
	CO3	Develop students' technical proficiency in understanding drama elements such as tone, rhythm, and dialogue, enhancing their language skills and appreciation for dramatic literature.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
EN4CC06: ILLUMINATIONS COURSE CODE	CO1	Cultivate and foster a positive outlook towards life among students. (Creation)
	CO2	Empower students to navigate and overcome setbacks by drawing insights from the provided texts.
EN4CCT08:REVISITING THE CLASSICS COURSE CODE	CO1	Explore and analyze classic literary works from diverse cultural backgrounds.
	CO2	Evaluate and comprehend the distinctive features contributing to the creation of classic literature.

HINDI

COURSE OUTCOMES (BA/B.Sc)

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
HN1CCT01: PROSE AND ONE ACT PLAYS	CO1	To provide different prose in Hindi language
	CO2	To emphasizes modern one act plays and thereby develop humane values

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
HN2CCT02: SHORT STORIES& NOVEL	CO1	To empower the student to acquire different values through short stories
	CO2	To gain insights on the novel 'Anthim Sakshya' by Chandrakantha.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
HN3CCT03: POETRY GRAMMAR AND TRANSLATION	CO1	To provide necessary foundation in grammar and translation which help the students to read, write and translate Hindi thoroughly.
	CO2	To understand ancient and modern poetry to establish the knowledge of Hindi Poets and Poems.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
HN4CCT04: DRAMA & LONG POEM	CO1	To gain insights on the very famous drama 'Konark' by Jagadeesh Chandra Mathoor.
	CO2	To develop the knowledge of different long poems in Hindi literature.

COURSE OUTCOMES (B.Com)

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
HN1CCT01: PROSE AND MASS MEDIA	CO1	To provide different prose in Hindi language
	CO2	To emphasizes the knowledge of mass media

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
HN2CCT02: POETRY, COMMERCIAL CORRESPONDENCE & TRANSLATION	CO1	To understand ancient and modern poems which will help to increase the humane values
	CO2	Translation and daily needed commercial information helps the students to their future and career

MALAYALAM

BA (Common Course) - Malayalam

COURSE OUTCOMES

SEMESTER I		
Course code and Course Title	**Course Outcome Number**	**Course Outcome**
ML1CCT01-കഥാസാഹിത്യം	CO1	മലയാള കഥാസാഹിത്യത്തിൽ സംഭവിക്കുന്ന ഭാവുകത്വപരിണാമങ്ങൾ തിരിച്ചറിയുന്നു.
	CO2	മലയാള ചെറുകഥയുടെ ഭാഷാപരവും ആഖ്യാനപരവുമായ പരിണാമം തിരിച്ചറിയാനാകുന്നു
	CO3	സാമാന്യമായ സാഹിത്യപരിചയവും. വായനാഭിരുചിയും ആസ്വാദനശേഷിയും വളർത്തിയെടുക്കാനാവുന്നു.

SEMESTER II		
Course code and Course Title	**Course Outcome Number**	**Course Outcome**
ML2CCT02-കവിത	CO1	മലയാള കവിതാസാഹിത്യത്തിൽ സംഭവിക്കുന്ന ഭാവുകത്വപരിണാമങ്ങൾ തിരിച്ചറിയുന്നു.
	CO2	മലയാള കവിതയുടെ വികാസപരിണാമങ്ങൾ തിരിച്ചറിയുന്നു,സർഗ്ഗാത്മകരചനയുള്ള പ്രേരണയുണ്ടാകുന്നു.
	CO3	പരിസ്ഥിതി, സ്ത്രീ, ദളിത് അനുഭവങ്ങളുടെ ആവിഷ്കാരത്തിലൂടെ കവിതയുടെ ബഹുസ്വരസ്വഭാവം കണ്ടെത്തുന്നു.
	CO4	കവിതയെ വിമർശനാത്മകമായി സമീപിക്കുന്നതിനുള്ള ശേഷി കൈവരിക്കുന്നു., സമകാലിക കവിതയിലെ വിഷയവൈവിധ്യവും എഴുത്തുരീതിയിലെ സവിശേഷതകളും വിശകലനം ചെയ്യാനാകുന്നു.

SEMESTER III		
Course code and Course Title	**Course Outcome Number**	**Course Outcome**
ML3CCT03-ദൃശ്യകലാസാഹിത്യം	CO1	കേരളത്തിന്റെ ദൃശ്യകലാപാരമ്പര്യത്തെക്കുറിച്ച് അറിവുനേടുന്നു. കലയുംസാഹിത്യവും സമൂഹനിർമ്മിതിയ്കാരണമായ ഘടകങ്ങളാണെന്ന്തിരിച്ചറിയുന്നു.

	CO2	വിവിധവുംസവിശേഷവുമായ കലാരൂപങ്ങളെപരിചയപ്പെടുന്നു. കേരളത്തിലെ ക്ലാസിക്കൽകലാപാരമ്പര്യത്തെ സവിശേഷമായി വിലയിരുത്തുന്നു.
	CO3	കേരളീയദൃശ്യകലയുടെ വ്യത്യസ്തതലങ്ങളെക്കുറിച്ച്നിരീക്ഷണം നടത്തുന്നു. കഥകളി, തുള്ളൽ, നാടകം, സിനിമ തുടങ്ങിയ ദൃശ്യകലാരൂപങ്ങളും അവയുടെസാഹിത്യവും പരിചയപ്പെടുന്നു.
	CO4	നാടകം, സിനിമ എന്നീ ദൃശ്യകലകളെക്കുറിച്ചുള്ള ധാരണരൂപപ്പെടുന്നു.

SEMESTER IV		
Course code and Course Title	**Course Outcome Number**	**Course Outcome**
ML4CCT04-മലയാളഗദ്യരചനകൾ	CO1	ഗദ്യസാഹിത്യരചനകൾ പരിചയപ്പെടുന്നു.
	CO2	നിരൂപണപരവും സൈദ്ധാന്തികവുമായ ലേഖനങ്ങൾ പഠിക്കുകവഴി സാഹിത്യകൃതികളെ വിലയിരുത്താനുള്ള ശേഷി നേടുന്നു.
	CO3	തെറ്റുകൂടാതെ ഗദ്യഭാഷ കൈകാര്യം ചെയ്യുന്നതിനുള്ള പ്രാവീണ്യം നേടുന്നു.
	CO4	കല, സാഹിത്യം, സംസ്കാരം തുടിങ്ങി വിവിധ മേഖലകളെക്കുറിച്ചുള്ള അറിവ് ലഭിക്കുന്നു.

B.Com (Common Course) - Malayalam

Course Outcomes

SEMESTER I		
Course code and Course Title	**Course Outcome Number**	**Course Outcome**
ML1CCT05-കഥയും കവിതയും	CO1	സാമാന്യമായ സാഹിത്യപരിചയവും വായനാഭിരുചിയും ആസ്വാദനശേഷിയും നേടുന്നു
	CO2	മലയാളസാഹിത്യത്തിൽ സംഭവിക്കുന്ന ഭാവുകത്വപരിണാമങ്ങൾ തിരിച്ചറിയുന്നു.
	CO3	കാലഘട്ടത്തിന്റെ പൊതുപ്രവണതകളും ഉദാത്തമായ ജീവിതവീക്ഷണവും എഴുത്തിൽ പ്രകടമാവുന്നത് തിരിച്ചറിയുന്നു.

SEMESTER II		
Course code and Course Title	**Course Outcome Number**	**Course Outcome**
ML2CCT06- ആത്മകഥ, ലേഖനം	CO1	മലയാള ഗദ്യത്തിന്റെ സൗന്ദര്യവും ശക്തിയും തിരിച്ചറിയാൻ കഴിയുന്നു.
	CO2	വ്യത്യസ്ത വിഷയങ്ങൾ മാതൃഭാഷയിൽ സമീപിക്കുവാൻ കഴിയുമെന്ന ബോധ്യം രൂപപ്പെടുന്നു.

Course code and Title	**No.**	**Course Outcome**
ML50PT01: പത്രപ്രവർത്തനം	CO1	മാധ്യമപ്രവർത്തനം എന്താണെന്നു മനസിലാക്കുന്നു. അച്ചടി, ദൃശ്യമാധ്യമം എന്നിവയുമായി ബന്ധപ്പെട്ട മാധ്യമപ്രവർത്തനരീതി അറിയുന്നു
	CO2	പത്രപ്രവർത്തന ചരിത്രവും വികാസപരിണാമങ്ങളും മനസിലാക്കുന്നു. മുദ്രണത്തിൽ വന്ന കാലോചിതമായ മാറ്റങ്ങൾ മനസിലാക്കുന്നു.
	CO3	മാധ്യമഭാഷ, ഉള്ളടക്കം, പരിപാടികളുടെ സ്വഭാവം എങ്കിവ തിരിച്ചറിയുകവഴി, മാധ്യമ രംഗത്തെ കാലോചിതമായ മാറ്റങ്ങൾ അറിയുന്നു.
	CO4	റിപ്പോർട്ടിംഗ്, എഡിറ്റിംഗ്, ലേഔട്ട്, പ്രൂഫ് വായന എന്നിവ തയാറാക്കുന്നതിനുള്ള സൂക്ഷ്മമമായ അവബോധം ആർജ്ജിക്കുന്നു.

DEPARTMENT OF PHYSICAL EDUCATION

COURSE OUTCOME: OPEN COURSE

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
PE50PT01: **PHYSICAL HEALTH AND LIFE SKILLS EDUCATION**	CO1	Understand and apply the principles of physical fitness in day to day activities
	CO2	Develop plans to follow a balanced diet
	CO3	Demonstrate different yogic asanas
	CO4	Develop a habit of practicing exercises

DEPARTMENT OF MANAGEMENT SCIENCE (SF)

PROGRAMME : Bachelor of Business Administration

PROGRAMME SPECIFIC OUTCOMES

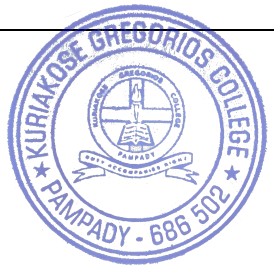
PSO No.	PSO Statement
PSO1	Learns to communicate in a business context in a clear , concise, coherent and professional manner.
PSO2	Understand different laws relating to business.
PSO3	Understand basic functions of management .
PSO4	Understand different process of research.
PSO5	Learn about entrepreneurship and formalities for starting a business.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
BA1CRTO1 : PRINCIPLES AND METHODOLOGY OF MANAGEMENT	CO1	Understand the basic concepts of management
	CO2	Understand different concept of planning and understand about decision making process.
	CO3	Understand different ways of organizing, coordination
	CO4	Identify the concept of control and different control techniques.
BA1CRTO2 : BUSINESS ACCOUNTING	CO1	Understand the basic of accounting.
	CO2	Understand the principles of accounting.
	CO3	Aware about the preparation of final account of a sole trader.
	CO4	Understand the bill of exchange and its importance in business.
BA1CMT04: FUNDAMENTALS OF BUSINESS STATISTICS	CO1	Define and use the basic of statistics
	CO2	Present the data using diagrams and graph
	CO3	Analyze statistical data using measures of central tendency and measures of dispersion.
	CO4	Calculate Trend values and seasonal indices

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
BA2CRT06: COST & MANAGEMENT ACCOUNTING	CO1	Understand the basics of cost accounting
	CO2	Identifies the basics principles of overhead costing
	CO3	Understand the processes of management accounting
	CO4	Know about the concept of budget control and variances
BA2CRT07: BUSINESS COMMUNICATION	CO1	Learns to write effective and concise letters and memos employing appropriate business format.
	CO2	Learns to prepare formal and informal reports
	CO3	Understand how to participate in meetings
	CO4	Realize the impact of language usage.
BA2CMT09: STATISTICS FOR MANAGEMENT	CO1	Use the basic probability rules like additive and multiplicative law
	CO2	Develop an idea about the probability distributions mean and variance.
	CO3	Understand the Binomial , Poisson and Normal Distribution .
	CO4	Formulate hypothesis about various population parameters .conduct chi- square test of goodness of fit and independence.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
BA3CRT11: HUMAN RESOURCE MANAGEMENT	CO1	Acquire the knowledge of basic concepts of HRM
	CO2	Identify the procedure of various human resource aspects.
	CO3	Attain an idea on performance appraisal methods.
	CO4	Learn how to maintain human resource records



BA3CRT12: MARKETING MANAGEMENT	CO1	Awareness on market,marketing, market segmentation and consumer behavior.
	CO2	Understand marketing mix
	CO3	Identify production process. Pricing policy ,
	CO4	Identify promotional activities, marketing research process.
BA3CRT13: RESEARCH METHODOLOGY	CO1	Understand the basic concept of research and research methodology.
	CO2	Awareness about different types of research.
	CO3	Awareness about research design and sampling design.
	CO4	Identify different sources of data and understand about interpretation and reporting of research.
BA3CMT14: BUSINESS LAWS	CO1	Explain the basic elements of forming a contract
	CO2	Explain special type of contract
	CO3	Understanding general principles of contract of bailment and pledge
	CO4	Recognize the object and significance of the sale of goods act
BA3PRP15: PERSONALITY DEVELOPMENT &MANAGEMENT SKILLS		The student will have the opportunity to explore current management literature so as to develop an individual style Sharpen their skills in leadership, communication ,decision making, motivation .

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
BA3PRP15: FINANCIAL MANAGEMENT	CO1	Understand the basic finance function
	CO2	Identify different sources of finance & its implications in business.
	CO3	Understand the concept of working capital management
	CO4	Understand capital structure,dividend decision
BA4CMT20: CORPORATE LAW	CO1	Identify the various steps in the formation of a company.
	CO2	outline the management of a company and assess the validity of company meetings.
	CO3	Understand the modes of winding up
	CO4	Understand the partnership business, limited liability partnership firm. also pollution control measures
BA4CRT17: MANAGERIAL ECONOMICS	CO1	Know the basic concepts of managerial economics and traditional economics
	CO2	Understand the impact of cyclical fluctuations on the working of business.
	CO3	Recognize the importance and uses of demand in a business firm
	CO4	Understand the pricing policy of a manufacturing units
BA4CRT18: ENTREPRENEURSHIP	CO1	Understand the concept of entrepreneurship
	CO2	Aware about EDP and its activities.
	CO3	Aware about formalities for setting SBE
	CO4	Understand how to prepare a project report

BA4CM T19: BASIC INFORMATICS FOR MANAGEMENT	CO1	Have thorough knowledge in excel
	CO2	Acquire the skills for analyze business data with excel
	CO3	Get enough knowledge in computerized accounting
	CO4	Understand about report making in computerized accounting.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
BA5CRT21: ORGANISATIONAL BEHAVIOUR BA5CRT21	CO1	Understand the concept of organizational behaviour
	CO2	Understand personality types perception and determinants and learning process on human behaviour
	CO3	Understand various theories of motivation and leadership
	CO4	Understand organizational culture ,climate
BA5CMT24: INTELLECTUAL PROPERTY RIGHTS & INDUSTRIAL LAW	CO1	Awareness about IPR Especially trade mark and patent
	CO2	Awareness about Factories act
	CO3	Understand how to solve industrial dispute in the light of Industrial dispute Act
	CO4	Aware ESI act& Consumer protection act
BA5CRT25: OPERATIONS MANAGEMENT	CO1	Identify the elements of operations management
	CO2	Recognize and understand steps of production planning and control
	CO3	Realize the importance of plant layout and location analysis
	CO4	Better understanding of quality control
BA5CRT26: INDUSTRIAL RELATION	CO1	Know how the relations are made in industries between workers and management
	CO2	Examine the role of trade union
	CO3	Recognize the important causes and impact of industrial dispute
	CO4	Understand ways to promote industrial peace

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
BA60CT27: OPTIONAL 1- HEALTH CARE MANAGEMENT	CO1	Awareness about hospital in health care
	CO2	Awareness about govt. Hospitals ,private hospitals
	CO3	Awareness about the management of hospitals
	CO4	Learn how to maintain records &identify new avenues in hospital management.
BA60CT28: ADVERTISEMENT &SALESMANSHIP	CO1	Understand different types of advertising
	CO2	Understand different functions of advertising agencies.
	CO3	Identify different ethical issues relating to advertisement

	CO4	Understand required skills for salesman ship
BA6CRT29: STRATEGIC MANAGEMENT	CO1	Understand basic concept of strategic management
	CO2	Understand strategic formulation
	CO3	Understand various strategic control techniques
	CO4	Understand various strategic issues relating to small medium and non profit organisation
BA6CRT30: COMMUNICATION SKILLS &PERSONALITY DEVELOPMENT	CO1	Learn how to deliver speech in formal occasion
	CO2	Identify the electronic media for crafting
	CO3	Draft a JOB application letter a Resume
	CO4	Discuss different topics related with environment, social problem
BA6PRP31: MANAGEMENT PROJECT	CO1	Students get an opportunity to experience the structure,working culture,and managerial functions of an organisation.

DEPARTMENT OF ENGLISH (SF)

PROGRAMME: Bachelor of Arts

PROGRAMME SPECIFIC OUTCOMES: BA English

PSO No.	PSO Statement
PSO1	Develop critical and analytical skills.
PSO2	Develop LSRW Skills.
PSO3	Develop proficiency in the usage of English language
PSO4	Develop vocabulary and the usage of specific vocabulary in the context.
PSO5	Appreciate literary works of different genres.
PSO6	Enhance human values through the learning of literary works.
PSO7	Understand the history of literature and the writers of different age.

COURSE OUTCOMES

SEMESTER I		
Course code and Title	**No.**	**Course Outcome**
EN1CCT01: Fine Tune Your English	CO1	Students will achieve grammar skills and become competent in its usage.
	CO2	Master LSRW Skills.
	CO3	Use language for effective communication.
	CO4	Develop vocabulary and will be competent in the use specific words in communication
ENCCT02: Pearls from the Deep	CO1	Students will become familiar with different genres of literature.
	CO2	Develop an aesthetic sense.
	CO3	Enable the students to appreciate and enjoy literature.
ENCRT01: Methodology of Literary Studies	CO1	To understand different methodology of studying literature.
	CO2	Enables the students to have a basic knowledge about history of English Literature.
	CO3	Understand sub genres of poetry.
	CO4	Understand the fundamentals of literary theory.

SEMESTER II		
Course code and Title	**No.**	**Course Outcome**
EN2CCT03: Issues that Matter	CO1	Be aware of contemporary issues.
	CO2	Equip the students to respond positively and actively to the issues raised.
	CO3	Develop rational thinking and humane outlook on relevant issues.
	CO4	Enables the student to respond to the issues without any mistakes in grammar.
EN2CCT04: Savouring the Classics	CO1	To appreciate and enjoy literary classics.
	CO2	Become familiar with the canonical writers
	CO3	Get acquainted with the classics of English Literature
EN2CRTO2: Introducing Language and Literature	CO1	To understand the evolution of the English Language.
	CO2	Analyse the periods in the history of English Literature.
	CO3	Understand the emergence of British and American Literature through different ages.
	CO4	Familiarize the diversity of genres and techniques of representation and narration.

SEMESTER III		
Course code and Title	**No.**	**Course Outcome**
EN3CRT03: HARMONY OF PROSE	CO1	Familiarise with the evolution of prose writing.
	CO2	Learn about varied prose styles and expressions.
	CO3	Exposed to different ages of prose writings.
	CO4	Develops vividness, eloquence and conciseness in speech.
EN3CR04: SYMPHONY OF VERSE	CO1	Develop an understanding of specifications and methodologies employed by poets.
	CO2	Become aware of movements that evoked remarkable pieces of poetry.
	CO3	Compare and contrast the mastery of techniques used by poets ranging from Renaissance to contemporary era.
	CO4	Become aware of practices of poetry in various periods of English tradition.
EN3CMT03: EVOLUTION OF LITERARY MOVEMENTS : THE SHAPERS OF DESTINY	CO1	Understand the role and influence of English language over power structures.
	CO2	Develops an understanding of the growth and progression of English language over other languages.
	CO3	Understand the evolution of English Literature in the light of historical events.
	CO4	Become aware of the impact of wars, invasions and British colonialism.

SEMESTER IV		
Course code and Title	**No.**	**Course Outcome**
EN4CCT06 : ILLUMINATIONS	CO1	Able to locate and evaluate writers' thoughts and experiences.
	CO2	Develop multiple perspectives and maintain positive attitude towards life.
	CO3	Understand different perspectives of great minds.
	CO4	Able to locate and evaluate writers' thoughts and experiences.
EN4CRT05: MODES OF FICTION	CO1	Differentiate the categorization of fiction into British and non British.
	CO2	Understand various elements of fiction and the literary devices.
	CO3	Develop power of thinking and imagination through the novels.
	CO4	Understand stylistic methods and techniques employed by writers.
EN4CRT06: LANGUAGE AND LINGUISTICS	CO1	Understand the key concepts and typologies in speech sound production.
	CO2	Analyse language, its characteristics and process involved in meaning generation.
	CO3	Enable them to practice transcription using IPA symbols.
	CO4	Aware of latest trends in language study.
	CO5	Understand major branches of linguistics such as phonetics, syntax, semantics, morphology etc.
EN4CMT04: EVOLUTION OF	CO1	Become aware of various literary movements and evolution of literature.
	CO2	Understand different concepts and branches of literature.
	CO3	Develops an insight into socio-political aspects of post colonialism.

LITERARY MOVEMENTS : THE CROSS CURRENTS OF CHANGE	CO4	Understand the notion of culture and interplay of social processes.

SEMESTER V		
Course code and Title	**No.**	**Course Outcome**
EN5CRT07: ACTS ON THE STAGE	CO1	Able to appreciate drama as an art form.
	CO2	Understand the major playwrights and their works.
	CO3	Explain the characteristics and features of Elizabethan dramas.
	CO4	Analyse the historical background of the modern plays.
EN5CRT08: LITERARY CRITICISM AND THEORY	CO1	Understand the major developments in literary criticism from the ancient times to the twentieth century.
	CO2	Analyse short poetical pieces critically.
	CO3	Develops logical thinking and critical reasoning.
	CO4	Understand the indigenous legacy of aesthetic thought.
EN5CRT09: INDIAN WRITING IN ENGLISH	CO1	Understand the works of the major writers of Indian English.
	CO2	Analyse the themes employed in Indian writing in English.
	CO3	Understand how Indian English Literature constructs and redefines the issues of national identity.
	CO4	Understand different concerns that Indian writers share.
EN5CRT01: ENVIRONMENTAL SCIENCE AND HUMAN RIGHTS	CO1	Analyse various environmental problems and make their own decisions about complex environmental issues by developing and enhancing critical and creative thinking skills.
	CO2	Understands how their actions can affect environment.
	CO3	Create awareness about proper waste management.
	CO4	Acquire basic knowledge about environment and realize the inter-relationship between ma and environment

SEMESTER VI		
Course code and Title	**No.**	**Course Outcome**
EN6CRT10: POSTCOLONIAL LITERATURES	CO1	Understand the impact of colonialism on native cultural identities.
	CO2	Understand the link between language ,history and culture.
	CO3	Understand the major postcolonial writers and their works.
	CO4	Attain knowledge about the social, political, cultural aspects of postcolonial societies.
EN6CRT11: WOMEN WRITING	CO1	Understand the basic notions of Feminism.
	CO2	Understand how patriarchal notions influence the social and cultural scenario and how feminism exposes these notions.
	CO3	Analyse how stereotypical representations of women were employed in literature and how these are overthrown by feminist writers.
EN6CRT12: AMERICAN LITERATURE	CO1	Identify the major authors in American Literature.
	CO2	Understand the evolution of various literary movements in American Literature.
	CO3	Understand the diversity of American culture.

EN6CRT13: MODERN WORLD LITERATURE	CO1	Understand how the notion of Major and Minor, Central and Peripheral literatures are a myth.
	CO2	Understand major authors and works from different parts of the world.
	CO3	Illustrates how literatures defy genres and regionalities to emerge as a platform where poetics and politics fuse
EN6CBT03: REGIONAL LITERATURES IN TRANSLATION	CO1	Understand the modern trends in regional literatures.
	CO2	Attain knowledge about the theoretical aspects of Translation.
	CO3	Aware about the rich and variegated canon of regional literatures.
	CO4	Familiarize the emerging trends in the new literatures.
	CO5	Enable the students to respect others

OPEN COURSE

Course code and Title	No.	Course Outcome
EN5CROP03: ENGLISH FOR CAREERS	CO1	Develop communication skills, which will enable them to prepare for a career and function effectively in it.
	CO2	Make the students competent in their job-seeking, job-getting, and job-holding needs.
	CO3	Comprehend the different decorums to be maintained in the professional world and categorise different personality types to apply it in real life.
	CO4	Equip themselves in oral and written communication to enhance their academic and professional use of language.

Outcome Based Evaluation (O B E)

COURSE TEAM FORMATION

Department :

Programme :

Semester :

Year :

Course title :

Course code :

Course- in- Charge:

Course team members

1.
2.
3.

MAPPING MATRIX

COURSES TO PROGRAMME OUTCOMES

Course Code	PO 1	PO 2	PO 3	PO4	PO 5	Benchmark for Course outcome (0-3 scale)
C 1						
C 2						
C 3						
C 4						
Bench mark for PO outcome						

COURSE OUTCOME ATTAINMENT EVALUATION – Direct Component

DEPARTMENT ……
SEMESTER……

Programme	Course code	Total Students	Grand class total for test	Class average	% students above class average	Attainment value 0- 3	PO's mapped
B Com/ BA/ B Sc/ BBA. . . .	Course 1 (C1)						
	Course 2 (C2)						
	Course3(C3)						

Attainment Levels

3 -- If % of students above class average is more than 70

2-- If % of students above class average is more than 60

1 -- If % of students above class average is more than 50

0 -- Below 50

COURSE OUTCOME ATTAINMENT EVALUATION – Indirect Component

Programme	Course Code	Total Students	Survey Grade Point	Total Grade Point	Class Average	Attainment Value	PO Mapped

FINAL COURSE OUTCOME ATTAINMENT EVALUATION

Department…….. **Programme……**

Year …… **Semester ……**

Courses	Activity Direct	Threshold attainment value	Attainment for Indirect Exit survey	80% Direct + 20% Indirect	Final attainment	Benchmark of the course	Corrective measures
C 1	Internalass essment						
C 2							
C 3							

PROGRAMME OUTCOME EVALUATION

Programme……

Year (Batch)……

Programme outcome	Course Mapped	Sum of attainment level	Average attainment level	80 %	PO exit survey	20%	PO attainment value	Benchmark Value	Corrective measures
PO1									
PO2									
PO3									
PO4									
PO5									

FINAL CONSOLIDATION OF PROGRAMME OUTCOMES

DEPARTMENT……..

Courses	PO 1	PO 2	PO 3	PO 4	PO5
C 1					
C 2					
C 3					
C 4					
Average					

INSTITUTIONAL FINAL ATTAINMENT

Departments	PO 1	PO 2	PO 3	PO 4	PO5
Commerce					
Economics					
Chemistry					
Physics					
Zoology					
BBA					
BA English					
Average