BACHELOR OF BUSINESS ADMINISTRATION

PROGRAMME OUTCOME

COURSE OUTCOMES

PRINCIPLES OF MANAGEMENT

LEARNING OBJECTIVES

1. To familiarize the students with principles of management concepts.
2. To provide an insight about the management functions of planning, organizing, staffing, directing & controlling.
3. To enumerate the importance of organizing and organizational structure.
4. To make them understand on the importance of HR practices and motivation.
5. To enable them to understand the techniques of co-ordinations.

COURSE OUTCOMES

1. Understand the basic concept of management and practices
2. Understand the proper planning, elements and techniques of planning recognise and apply the skills necessary for carrying out effective management practices.
3. Understand the different organization structure need for departmentation.
4. Understand the basic concepts of staffing process in the human resource department and theories of motivation.
5. Understand the problems and stages in controlling process & coordination.

FINANCIAL ACCOUNTING

LEARNING OBJECTIVES

1. To inculcate basic accounting concepts and postulates
2. To understand how trial balance helps to check accuracy in the ledger positioning
3. To provide wide knowledge about final accounts
4. To understand the meaning of depreciation and methods of charging depreciation
5. To build a base income and expenditure& receipts and payment accounts. To Provide complete knowledge of C language

COURSE OUTCOMES

1. Understand the fundamentals of financial accounting
2. Ensure the mathematical accuracy of the business transaction recorded in company ledger.
3. Prepare various books of accounts and final accounts.
4. Understand how to determine the amount of depreciation from the total value of property.
5. Learn to prepare various accounts; receipts and payments account, income and expenditure, balance sheet for non-profit organisation. To understand the concepts of data types and operators

SALESMANSHIP

LEARNING OBJECTIVES

1. To provide the students with various duties and responsibilities of salesman.
2. To learn importance of sales presentation and sales aids.
3. To enable them to analyse sales forecasting and its methods.
4. To help them to know the factors affecting sales decision.

COURSE OUTCOMES

1. Duties and responsibilities of salesman.
2. Essentials of sales.
3. Importance of market survey to salesman and producer.
4. Sales forecasting.
5. Various factors affecting sales decision.

BUSINESS ENVIRONMENT

LEARNING OBJECTIVES

1. To enable the students to understand the nature of business and its environment.
2. To know how economic culture, culture systems influence organizations
3. To understand how government pertaining to business have an influence on an organization
4. To understand how privatization and globalization affects organizations
5. To enable the students to examine and evaluate the business economic systems.

COURSE OUTCOMES

1. Acquaint with business objectives, dynamics of business and environment
2. Able to recall and relate business and society.
3. Enable to discuss the contemporary issues in business.
4. Describe concepts like business ethics, ethical dilemmas, corporate culture.
5. Acquaint with various strategies of global trade.

TALLY (PRACTICALS)

LEARNING OBJECTIVES

1. Help the students to know the fundamental concepts of Tally.
2. Help them to understand how to use Tally software in day to day applications.
3. Familiarize the students to use this package for business.
4. Introduce the students to some basic tools like creation of voucher, purchase order etc.
5. Familiarize the students in the preparation of tax related sales vouchers.

COURSE OUTCOMES

1. Using Tally to create personal business documents following current professional and/or industry standards
2. Create scientific and technical documents incorporating the billing procedures
3. Develop entries for creation of vouchers
4. Design bills for implementation of taxation aspects.
5. Design and construct financial statements after considering taxes and GST.

PRESENTATION SKILLS

LEARNING OBJECTIVES

1. To impart knowledge to develop the presentation skills.
2. To help the students to make their presentations effectively.
3. To learn about the fundamental presentation skills.

COURSE OUTCOMES

1. Use and practice delivery techniques for making presentation
2. Structure presentation skills in order to improve presentation
3. Understand the importance of presentation materials
4. Know the audience to have effective presentation
5. Demonstrate the methods for power point presentation

BACHELOR OF COMMERCE

PROGRAMME OUTCOME

PO 1:
To have comprehensive knowledge of finance, accounting, taxation, economics and business laws.

PO2:
To equip with professional, inter-personal and entrepreneurial skills for economic and social growth.

PO3:
To gear up with updated knowledge in implementing business practices.

PO4:
To acquire effective skills like communication, decision making, problem solving in business activities.

PO5:
To blend knowledge, skill and attitude that will sustain an environment of learning and creativity.

PO6:
To impart value based and job oriented education, which ensures that the students are trained into up-to-date.

PROGRAMME SPECIFIC OUTCOME

1. To develop an attitude of strong morale in stuff competition.
2. To build a strong foundation of knowledge of commerce in different areas.
3. To promote students about entrepreneurial development.
4. To develop a thorough understanding of accounts and financial functions of organization.
5. To develop quality leadership in financial area.
6. To develop quality consultant in taxation area.
7. To be able to calculate and understand gst, cstandigst.
8. Knowledge of social awareness.
9. To develop good leaders in management area.
10. An ability to function effectively on multi-disciplinary teams

COURSE OUTCOMES

FINANCIAL ACCOUNTING - I

LEARNING OBJECTIVES

1. To acquaint a strong basic knowledge on Principles and practical applications of Double entry system of accounting.
2. To gain expertise in the preparation of the Final Accounts as per the Accounting Standards
3. To provide knowledge on accounting for Depreciation
4. To inculcate the knowledge on Bills of Exchange and Bank Reconciliation Statement
5. To give insights about the preparation of Single-Entry System and its conversion into double entry system of accounting

COURSE OUTCOMES

1. Recall the basic principles, concepts and fundamentals of Double Entry System Accounting
2. Apply analytical and technical skills in the preparation of Final Accounts
3. Identify and familiarize the different methods of depreciation accounting
4. Grasp the accounting treatments of Bills and preparation of Bank Reconciliation Statement
5. Acquire knowledge on preparing the accounts in Single Entry system

BUSINESS ORGANISATION

LEARNING OBJECTIVES

1. To understand the concept of business and profession
2. To identify the different forms of business organization
3. To analyse the factors influencing the business location.
4. To appraise the working of chamber of commerce and trade associations
5. To evaluate the difference between IC, MNC, GC and TNCs

COURSE OUTCOMES

1. Familiarize with Modern Business and Profession.
2. Identify different forms of business organizations viz; Sole Proprietorship, Partnership, Joint stock companies & Co-operative Organizations.
3. Acquire knowledge about the locational advantages.
4. Understand different forms of business combination and their relative merits.
5. Distinguish and outline the characteristics of MNCs, GC and TNCs.

COMPUTER APPLICATION IN BUSINESS

LEARNING OBJECTIVES

1. To acquire and apply the computer applications in different aspects of business
2. To get an insight knowledge on Ms-office, Ms-excel.
3. To know the database maintenance in every type of applications.
4. To analyse the various types of charts in Ms-Excel
5. To develop the programs in Ms-word and Ms-excel.

COURSE OUTCOMES

1. Work with the required skills in Ms Office for office administration.
2. Work with the required set in MS Excel.
3. Use various math functions of MS Excel in business calculation.
4. Work with draw graphs using MS Excel.
5. Extract data using filter option in MS Excel.

PRINCIPLES OF MARKETING

LEARNING OBJECTIVES

1. To conceptualize an idea about marketing and related terms
2. To provide insight about various forms and types of marketing
3. To analyze various components of Promotion
4. To understand various concepts relating to Pricing
5. To introduce the components of marketing mix

COURSE OUTCOMES

1. Know the basic principles and practices of marketing.
2. Understand about market segmentation
3. Understand the pricing mechanism of marketing.
4. Understand the types of pricing
5. Understand the concepts of Sales Promotion

FINANCIAL ACCOUNTING - II

LEARNING OBJECTIVES

1. To give an insight about Account Current and Average Due Date
2. To understand the branch accounts and its types
3. To have practical knowledge in the preparation departmental accounting
4. To familiarize with accounting procedure on Partnership – Admission and Retirement
5. To acquire practical knowledge in Partnership accounts on Dissolution

COURSE OUTCOMES

1. Understand the concept and gain the knowledge on Average Due Date and Account Current.
2. Be familiar with the nuances of different systems of accounting followed in Branches.
3. Acquire the knowledge about Departmental Accounts.
4. Be acquainted with the accounting treatments required for admission, retirement and death of partners in Partnership firms.
5. Understand the accounting procedures involved in the Dissolution of firm under different situations.

ADVERTISING AND SALESMANSHIP

LEARNING OBJECTIVES

1. To understand the concept of advertising
2. To enable the students to have practical knowledge about advertising agencies
3. To familiarize about recent trends in advertising
4. To have knowledge on fundamental concept of salesmanship
5. To understand the duties and responsibilities of salesmanship

COURSE OUTCOMES

1. **Understand the concept and gain the knowledge on Average Due Date and Account Current.**
2. **Be familiar with the nuances of different systems of accounting followed in Branches.**
3. **Acquire the knowledge about Departmental Accounts.**
4. **Be acquainted with the accounting treatments required for admission, retirement and death of partners in Partnership firms.**
5. **Understand the accounting procedures involved in the Dissolution of firm under different situations.**

MASTER OF COMMERCE

PROGRAMME OUTCOME

1. **Developed management skills.**
2. **Developed entrepreneurial ability.**
3. **Developed numerical ability.**
4. **Well familiar with business regulatory frame work.**
5. **Having basic knowledge of important business, laws, financial accounting and basic principles of economics.**

PROGRAMME SPECIFIC OUTCOME

1. **To develop an attitude of strong morale in stuff competition.**
2. **To build a strong foundation of knowledge of commerce in different areas.**
3. **To promote students about entrepreneurial development.**
4. **To develop a thorough understanding of accounts and financial functions of organization.**
5. **To develop quality leadership in financial area.**
6. **To develop quality consultant in taxation area.**
7. **To be able to calculate and understand GST, Cstandigst.**
8. **Knowledge of social awareness.**
9. **To develop good leaders in management area.**
10. **An ability to function effectively on multi-disciplinary teams**

COURSE OUTCOMES

STRATEGIC FINANCIAL MANAGEMENT

LEARNING OBJECTIVES

1. To have the understanding of the functions of finance management
2. To expand the awareness of long term sources of funds.
3. To facilitate the students to the understanding of capital structure and leverage
4. To bring subject knowledge about capital investment decision among the students.
5. To let students to be acquainted with the subject of working capital management.

COURSE OUTCOMES

1. After studied Unit-1, the student will be able to understand the functions of finance Management.
2. After studied Unit-2, the student will be able to know about the long term sources of funds and environment of working capital.
3. After studied Unit-3, the student will be able to gain information about capital structure and leverage
4. After studied Unit-4, the student will be able to gain knowledge about capital investment decision
5. After studied Unit-5, the student will be able to be acquainted with on the subject of working capital Management.

MANAGERIAL ECONOMICS

LEARNING OBJECTIVES

1. To enable the students to know the scope and application of managerial economics.
2. To knowledge the students to know the managerial use of production function.
3. To study about a different marketing structures.
4. To know about profit planning and forecasting.
5. To study on business cycle and policies.

COURSE OUTCOMES

1. The scope and application of managerial economics.
2. Managerial use of production function.
3. Different marketing structures.
4. Profit planning and forecasting.
5. Business cycle and policies.

ADVANCED BUSINESS STATISTICS

LEARNING OBJECTIVES

1. To enhance the students to know about multiple correlation and multiple regression.
2. To extend the knowledge of technique of probability.
3. To facilitate the students to have the deep knowledge on sampling methods, proportions-large and small samples- Z test and T test.
4. To bring the students to get information about chi square test.
5. To know about F-Test and ANOVA.

COURSE OUTCOMES

1. Partial and Multiple correlations.
2. Probability and Binomial distribution.
3. Sampling, Hypothesis, Z Test and T Test.
4. Application of Chi – square test.
5. Analysis of variance and F test.

MERCHANT BANKING AND FINANCIAL SERVICES

LEARNING OBJECTIVES

1. Understand the modes of issuing securities
2. Acquire financial evaluation technique of leasing and hire purchase

COURSE OUTCOMES

1. Good knowledge on merchant banking activities

ORGANISATIONAL BEHAVIOUR

LEARNING OBJECTIVES

1. To make the students to understand and the need and importance of Organizational Behaviour.
2. To impart the students to gain expert knowledge about the application of organizational conflict technique to resolve problems in an organization.
3. To make an awareness among students about the implication of organizational changes and its effectiveness.

COURSE OUTCOMES

1. Appreciate the implication of Organizational Behaviour in an organization.
2. Compare the strength and limitations of different organizational structure.
3. Solve the different forms of conflicts and assume different leadership styles.
4. Recall the significance of quality of work life and organizational changes.
5. Recognize the factors affecting the organizational effectiveness.

HUMAN RESOURCE MANAGEMENT

LEARNING OBJECTIVES

1. To enable the students to have a thorough understanding of changing role of HRM in global and Indian perspective
2. To disseminate the students about various methods of recruitment, training and performance appraisal techniques
3. To impart the students to gain expert knowledge of various theories of motivation and human resource audit

COURSE OUTCOMES

1. Comprehend the fundamentals of Human Resource Management
2. Compute job analysis report and be able to develop job description and job specification.
3. Describe the various motivational applications in practice

4. Explain performance appraisal techniques and able to prepare performance appraisal forms
5. Develop human resource audit plan and conduct HR audit.

BANKING AND INSURANCE

LEARNING OBJECTIVES

1. To impart the students to have a deep knowledge in the functioning of commercial banks.
2. To make the students to comprehend the general principles of contract of insurance and other forms of insurance.
3. To impart the students to master over the provisions of banking instruments.

COURSE OUTCOMES

1. Understand the fundamental concepts of banking and Insurance.
2. Recall the role of commercial banks in Economic Development.
3. Master over the provisions of banking instruments.
4. Understand the applicability of various types of policies.
5. Recognize the fundamental principles of general insurance.

ACCOUNTING FOR MANAGERS

LEARNING OBJECTIVES

1. To understand the basic principles and concepts in accounting
2. To draft the final accounts as per accounting standards
3. To acquire knowledge in Rectification of errors and Bank Reconciliation statement
4. To analyse the financial statements like ratios and funds flow statements
5. To enable students to learn the elements of cost

COURSE OUTCOMES

1. Understand the need and types of Accounting, Users of Accounting concepts and conventions
2. Gain knowledge in preparing financial statements
3. Acquire knowledge on preparing the Bank reconciliation statement
4. Understand and apply the different types of ratios
5. Learn the elements of cost

INCOME TAX LAW AND PRACTICE

LEARNING OBJECTIVES

1. To educate the students on computation of income from various sources
2. To impart knowledge to the students to file tax returns

COURSE OUTCOMES

1. Understand the concept of income
2. Compute the total income of various kinds of assesses
3. Understand the clubbing of income and carry forward of losses
4. Determine the tax liability under different heads of income
5. Get familiarized with filing of return on different kinds of assesses.

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

LEARNING OBJECTIVES

1. To enable the students to know the meaning and types of security analysis & portfolio management.
2. To make the students to understand the meaning and features of hire purchase.
3. To develop Knowledge about mutual funds.
4. To Knowledge the students to know the meaning and features of venture capital.
5. To enhance the students to know about the significance and types of Factoring.

COURSE OUTCOMES

1. Meaning and types of security analysis & portfolio management.
2. The meaning and features of hire purchase.
3. Develop Knowledge about mutual funds.
4. Meaning and features of venture capital.
5. Significance and types of Factoring.

DIGITAL BANKING

LEARNING OBJECTIVES

1. To enable the students to know the banking legislation in India.
2. To study the changing scenario of Indian banking system.
3. To know about the bank deposits, loans and advances.
4. To study on demonetization and remonetisation.
5. To study on payment system and digital banking.

COURSE OUTCOMES

1. Banking legislation in India.
2. The changing scenario of Indian banking system.
3. Bank deposits, loans and advances.
4. Demonetization and remonetisation.
5. Payment system and digital banking.

DIGITAL MARKETING

LEARNING OBJECTIVES

1. To enable the students to know the digital marketing.
2. To study the digital marketing environment and strategy.
3. To know the students about the significance of digital marketing mix.
4. To study on communication and channel mix.
5. To educate the students to understand the significance of online advertising.

COURSE OUTCOMES

1. The digital marketing.
2. Digital marketing environment and strategy.
3. The significance of digital marketing mix.
4. Communication and channel mix.
5. The significance of online advertising

MANAGEMENT INFORMANTION SYSTEM

LEARNING OBJECTIVES

1. To study about information system and business model.
2. To know about modern information system.
3. To study the functional area of information system.
4. To enable the students to know testing security and risk of information system.
5. To know about software engineering qualities.

COURSE OUTCOMES

1. Information system and business model.
2. Modern information system.
3. Functional area of information system.
4. Testing security and risk of information system.
5. Software engineering qualities.

BACHELOR OF ECONOMICS

PROGRAMME OUTCOME

1. **Economics is the study of how people decide to use resources on an individual and a collective basis. It examines the kinds of work people do and how much time they spend doing it.**
2. **Economics also looks at production, investments, taxation and how people spend and save money. Before you commit yourself to spending time and effort studying economics, it helps to know the advantages of doing so.**
3. **Economics is the study of how societies, governments, businesses, households, and individuals allocate their scarce resources. Our discipline has two important features. First, we develop conceptual models of behaviour to predict responses to changes in policy and market conditions. Second, we use rigorous statistical analysis to investigate these changes.**

PROGRAMME SPECIFIC OUTCOME

Students will understand and demonstrate core Micro Economic terms, concepts, and theories and also general economic concepts.

1. **Macro Economics helps to achieve the goal of economic growth, a higher GDP level, and higher level of employment and it helps to bring stability in price level and analysis fluctuations in business activities.**
2. **Industrial Economics is the study of firms, industries, and markets. It looks at firms of all sizes – from local corner shops to multinational giants such as WalMart or Tesco. And it considers a whole range of industries, such as electricity generation, car production, and restaurants.**

Development Economics is fascinating because it shows how economic analysis can help us to understand the big themes of the 21st century-poverty and inequality, globalization and trade and the contrasting experience of success and failure in the economies of different regions of the world.

COURSE OUTCOMES

MICRO ECONOMICS – I

LEARNING OBJECTIVES

1. To introduce the Concepts and Definitions of Economics and Micro economics
2. Acquires the knowledge of the Demand and Supply analysis.
3. Understands the Concept Utility, Laws of utility and Consumer Surplus
4. Understand the Indifference curve analysis and Consumer's Equilibrium.
5. Understands the importance of the theory of production & Producer Equilibrium.

COURSE OUTCOMES

1. Understand the concept of Micro Economics, Definitions of Economics, and Micro Economics, Inductive and Deductive methods and Positive and Normative Economics.
2. To analyse Demand and Supply concepts
3. To understand the law of Diminishing Marginal utility and Consumer Surplus.
4. To understand the Indifference curve analysis and Consumers equilibrium.
5. To gain knowledge of the theories of Production Function and Producer equilibrium.

INDIAN ECONOMY

LEARNING OBJECTIVES

1. Understands the Concepts-Underdevelopment, Economic Growth and
2. Economic Development.
3. Acquires knowledge of Agricultural and Industrial Development during (1950-1991)
4. To understands the New Economic Policy and about NITI Ayog.
5. To Acquires knowledge of developments since1991.
6. To understands the Role of Service and Financial sectors

COURSE OUTCOMES

1. To differentiate Economic Growth and Economic Development and Features of India as developing Economy.
2. To understand the Role of Agricultural Sector and Industrial sector in India.
3. To explain the New Economic Policy and its Components.
4. To get knowledge the Growth of Agriculture and Industry since 1991.
5. To assess the role of Service and Financial sector in India.

ECONOMICS FOOD AND NUTRITION

LEARNING OBJECTIVES

1. To make the students understand the concept and importance of food security
2. To make them understand the importance of nutrition in the promotion of health
3. To make them gain knowledge about nutrition problems existing in the country
4. To develop skills to assess the nutritional status of the country
5. To inculcate the skill to deliver nutritional services and enable to become entrepreneurs in the field of food and nutrition.

COURSE OUTCOMES

1. Students understand the various aspects of food security and importance of PDS
2. Apply the principle of quality assurance and food safety for development
3. Know about government regulation in quality control
4. Evaluate the impact of nutritional awareness on nutritional and health status
5. Skill to develop educational programme for a target group

MICRO ECONOMICS - II

LEARNING OBJECTIVES

1. Understands the various cost and revenues in the process of production.
2. Acquires knowledge of a perfectly competitive market.
3. Understands the different Imperfect competition markets.
4. To get knowledge of pricing of factor of production –Land and Labour.
5. Understands the theories of Interest and Profit.

COURSE OUTCOMES

1. To understand various cost concepts and their relationships.
2. To understand the concept of market competition and how price and output determined in a perfect competition.
3. To acquire Knowledge of Price and Output determination in an Imperfect market.
4. To analyse the Marginal productivity theory of distribution and the theories based on which the Rent and Wages are fixed and the importance of Trade unions.
5. To gain knowledge of the theories of Interest and profit.
6. Good knowledge on merchant banking activities

MATHEMATICS FOR ECONOMICS

LEARNING OBJECTIVES

1. The goal of this course is to provide students with the essential concepts of Economic Model.
2. To prepare them to understand the Matrix Algebra.
3. To make them understand various Applications of Matrix Algebra.
4. To emphasize the importance of Derivatives.
5. An attempt to train students to collect and interpret data on economies

COURSE OUTCOMES

1. **Understand the mathematical functions.**
2. **Learn certain Matrix Algebra.**
3. **Learn various applications of Matrix Algebra.**
4. **Understand the Derivatives of a function and learn its physical interpretation through various examples.**
5. **Learn various applications of First Order Derivatives.**

PERSONALITY DEVELOPMENT

LEARNING OBJECTIVES

1. **To Enhance holistic development of students and improve their personality**
2. **To understand themselves and bean effective goal-oriented team player**
3. **To develop professionals with idealistic, practical and moral values**
4. **To develop self-confidence and communication skill**
5. **To develop positive attitude and positive thinking**

COURSE OUTCOMES

1. **To develop confidence to face the workplace and society at large.**
2. **To identify and kindle their inner spirit and get self-motivated.**
3. **To understand their own strength and weakness.**
4. **To analyse their own confidence and communication skill.**
5. **To develop their positive approach in their career and life.**

MASTER OF ECONOMICS

PROGRAMME OUTCOME

1. **Students are expected to be able to apply economic analysis to everyday problems in real world situations.**
2. **Students are expected to understand how to use empirical evidence to evaluate the validity of an economic argument, use statistical methodology, interpret statistical results and conduct appropriate statistical analysis of data.**
3. **Creation of knowledge in fundamentals of Economics, application of Economics with the help of Mathematics, Statistics and Computer Applications is a strong foundation for PG Students.**
4. **Decision making and evaluate the solutions for useful complex economic issues and train the students to meet the specified needs to resolve complex economic issues.**
5. **Train the students in Industrial, Agricultural and Service sector economics. This will be helpful for them to get into the concern sector for their Job Oriented goals.**
6. **Create knowledge and select the issues to adopt the techniques to understand resource allocation and Macro Economic policies in Indian Economy.**
7. **By way of getting complete knowledge in Economics may helpful for them to commit for the professional Ethics and responsibilities taken by them in their professional Career.**
8. **Students of post graduate in Economics are practiced for Basic knowledge in Economics, Mathematics, Statistics and Accountancy. This type of getting knowledge may helpful to students to clear any kind of basic Competitive Examinations.**
9. **Knowledge in Economics and creation of domain knowledge will be effectively served to the students to understand the Society, Societal complex problems and for the attainment of Comprehensive solutions.**

ADVANCED MICRO ECONOMICS

LEARNING OBJECTIVES

1. Micro Economic theory forms the basic theoretical foundation of the core subject.
2. The concepts, theories and diagrammatic representation are the most important tools that aid the students to understand the subject

COURSE OUTCOMES

1. Provides the basic theoretical foundation of the Micro Economic Analysis.
2. Gain knowledge with the various aspects of managerial enterprises and its concepts.
3. Understand the Theories of Distribution in Micro Economic perspectives.
4. Provides a nutshell of Welfare Economics and its related concepts.
5. Differentiate between general and partial equilibrium with its components.

STATISTICS FOR ECONOMICS

LEARNING OBJECTIVES

1. This subject provides some knowledge in statistical methods to the students and the scholars involved in social science research activities.
2. To help the students understand and apply statistical tools for research.

COURSE OUTCOMES

1. Provides some knowledge in statistical methods and its related concepts and formulas.
2. Motivate an intrinsic interest in statistical thinking and its applications.
3. In still in the belief that statistics is important for scientific research.
4. Provides a foundation and motivation for exposure to statistical ideas subsequent to the course.
5. Demonstrate the ability to apply fundamental concepts and exploratory data analysis.

INDIAN ECONOMIC DEVELOPMENT

LEARNING OBJECTIVES

1. **Students to know the Indian Economic Development and policy issues and challenges.**
2. **Students gain knowledge about the road map for economic development.**

COURSE OUTCOMES

1. **Students gained the status of Indian economy in the world.**
2. **Trained the students with different economic policies in India.**

AGRICULTURAL ECONOMICS

LEARNING OBJECTIVES

1. **To understand the basic Characteristics of Agriculture**
2. **To learn various Steps of Agricultural Production and Productivity.**
3. **To study the concepts and issues of recent agricultural strategy.**
4. **To study the marketing area of agriculture.**
5. **To develop a critical study on recent agricultural crisis in India.**

COURSE OUTCOMES

1. **The student will be able to understand the overview of agricultural economics.**
2. **The students acquire knowledge to getting agricultural inputs and productivity performance.**
3. **The student will be able to understand recent trends in Indian agriculture and problems.**
4. **The student will be able to understand the agricultural marketing and its operations.**
5. **The student will be able to knowing about government pricing policies on agriculture and allied industries.**

RURAL DEVELOPMENT

LEARNING OBJECTIVES

1. To get an exposure to a new rural area and the socio-economic condition of people
2. To provide knowledge from ancient to modern agricultural practices
3. To face the rural reality during the rural living and learning experience
4. Detailed knowledge on various agri-business activities.

COURSE OUTCOMES

1. Learn about transformation in rural development.
2. Appraise the development of rural Issues.
3. Assess Institutional and organization for rural development.
4. Know the role played by rural innovations in transforming rural societies.
5. Understand the rural development process& planning.

LABOUR ECONOMICS

LEARNING OBJECTIVES

1. The main objective of this subject is to study the concepts and issues relating to labour.
2. Economics and industrial relations in the contemporary economic issues.
3. To understand the nature of Indian Labours and their problems and prospects.

COURSE OUTCOMES

1. Study the concept and issues relating to labour economics and its significant.
2. Gain knowledge about industrial relations in the contemporary economic issues and challenges.
3. Understand the nature of Indian Labours and their problems and prospects.
4. Explain the child labour and female labour employment and its related concepts.
5. Analyse collective bargaining adjustment and its associated concepts.

URBAN ECONOMICS

LEARNING OBJECTIVES

1. To understand the forces underlying the process of urbanization
2. To develop students skill to examine the economic aspects or urbanization and migration
3. To clarify the problem of urbanisation
4. To provide insights into the formation of effective urban policies
5. To know the Urban Development Policy in India

COURSE OUTCOMES

1. Able to understand the theories of urbanization
2. Able to know the causing migration factors from rural to urban.
3. Able to understand the problems of urbanization
4. Able to know the policies for integrated development of towns
5. Able to analyses the measures of decentralization industry-growth centres

ADVANCED MACRO ECONOMICS

LEARNING OBJECTIVES

1. To study the aggregate economic indicators and National Income Measurements.
2. To analyse the Classical, Keynesian Theory of employment and Concepts.
3. To get impress about Consumption Function analysis
4. To found knowledge about Investment Function analysis
5. To Identify the IS-LM models of General Equilibrium and Policy measures.

COURSE OUTCOMES

1. The student will be able to get awareness about basic concepts and National Income Components.
2. The student will be able to knowing about Classical Theory of Employment and Output.
3. The student will be able to knowing about Theories of Consumption Function.
4. The student will be able to knowing about Investment Function and its empirical evidence.
5. The student will be able to understand the General Equilibrium Models and Policies.

MATHEMATICAL ECONOMICS

LEARNING OBJECTIVES

1. To teach the students the meaning and significance of Mathematical Economics.
2. To develop in Economics skill in working out simple problems.
3. The objective of this paper is to study the basic mathematical concepts relating to economic analysis and its applications

COURSE OUTCOMES

1. Gain Knowledge on basic Mathematical concepts relating to Economic analysis and its applications.
2. Explain and teach the applications of Mathematics in Economics.
3. Solve unconstrained optimization problems involving functions of single and multiple variable..
4. Answer simultaneous equations using Matrix Inversion and Cramer‟s Rule..
5. Give solutions to solve differential equations and perform basic integration

MONETARY ECONOMICS

LEARNING OBJECTIVES

1. Monetary economics has intensified greatly with substantial stream of evidence relating to money, Banking and Finance.
2. To know the various theories of supply of money, capital market, and policies

COURSE OUTCOMES

1. Understand the various functions and classifications of Money.
2. Impart knowledge on value of Money and supply of money.
3. Study Money standards and Indian Currency system.
4. Understand the banking and Non-banking institutions.
5. Gain knowledge of monetary policy.

ENTREPRENEURIAL DEVELOPMENT

LEARNING OBJECTIVES

1. To introduce the students the basic concepts of entrepreneurship.
2. To familiarize the concept of EDP and the role of govt.
3. To get an idea on Project Identification and its formulation
4. To understand the concept of Project Appraisal
5. To widen the knowledge on institutional support for the new Entrepreneurs

COURSE OUTCOMES

1. After the completion of the course, students get immense knowledge on the concept of Entrepreneur.
2. This course motivates the students to become an Entrepreneur.
3. Students get familiarized with the projects identification.
4. Inspires the young graduates to become a Dynamic Entrepreneurs.
5. Get an idea on institutional support

HUMAN RESOURCES DEVELOPMENT

LEARNING OBJECTIVES

1. To impart the knowledge and understanding the role of Human Resource Development
2. The selection process and various test of interviews. It is very helpful to the students to learn more knowledge about the various Bargaining system and Human Resource Development.
3. To impart the knowledge and understanding the Human resources training

COURSE OUTCOMES

1. Understand the role of Human Resource Development and its related concepts.
2. Highlights the selection process and various tests of interviews and its associated concepts.
3. Contribute to the Development, Evaluation, Job analysis and Retention plans and Processes.
4. Administer the design and evaluation of the performance management program and its concepts.

GENDER ECONOMICS

LEARNING OBJECTIVES

1. To understand the concepts of Women Studies vs Gender studies
2. To make the students to know the growth of Gender and Urban Sector
3. To enable the students to study the Economic empowerment – Poverty Eradication
4. To the students understand the Occupational pattern of women's Employment

COURSE OUTCOMES

1. To understand the dimensions of female mortality and morbidity female Density
2. To make the students to know the Wage differentials in the labour market
3. To enable the students to study the Rural and Urban Compared. Economic empowerment
4. To the students understand the Legislature Assemblies in Parliament – Cultural Empowerment

ECONOMICS OF CLIMATE CHANGE

LEARNING OBJECTIVES

1. To Creating CC Information economy transmission mechanisms
2. To Enhancing CC Knowledge Access , information sharing and economic policies for climate change Migration
3. The objective is to enable students to understand the drivers of climate change, the methods to analyse
4. The students understand the local and Global Action of CC

COURSE OUTCOMES

1. The purpose of the course is to present the economics of climate change in a way that integrates climate, and Impact of climate change on Agriculture and Environment.
2. The economy, and the policy issues that emerge in the course of attempts by countries to : Economic Policies for Climate change Mitigation

3. The objective is to enable students to understand the drivers of climate change, the methods to analyse
4. The course provides an understanding of climate change issues, especially the economics of climate change and natural resources management

FILED STUDY CSSR/FILED VISIT

LEARNING OBJECTIVES

1. To understand the field Study and CSRR (College Social Responsibility Report)
2. The aim of the Field Study is to help students connect with the society in the respective discipline.
3. To know the important features of the Field Study and the CSRR

HUMAN RIGHTS

LEARNING OBJECTIVES

4. To know the rights of all Human Beings.
5. The role of UN and multi nation in protecting and promoting awareness of Human Rights
6. To compare the development of regional protection of Human Rights
7. The Indian perspective of protection of Human Rights under the Constitution of India
8. To mind the human redressed mechanisms of human rights and practiced in India.

COURSE OUTCOMES

1. Students able to know the basic of human rights
2. Students able to compare enforcements and treaty of human rights among the countries.
3. Students able to study the regional developments of human rights in Europe, Africa and Asia
4. The student able to possess the knowledge of human rights India under the constitution.
5. The students will know redressed mechanism made available in case of human rights violation confined to India.

BACHELOR OF ENGLISH

PROGRAMME OUTCOME

1. **This program enables students to develop competency in communication skills and gives them confidence in expressing their opinion, emotions and thoughts in English speaking environment.**
2. **Students are able to understand the social, economic and political standpoints of the literatures written and translated into English especially in the post- colonial era.**
3. **Students can surf, comprehend, and appraise and amalgamate information from a variety of manuscripts and websites.**
4. **Encourages them to approach literature from a critical and intellectual point of view in identifying potential research problems and arriving at a solution to them.**
5. **Their perception of other cultures, races and their way of life give them a deeper insight into the human psyche.**
6. **Students of English literature are better equipped to cross the barriers of other disciplines like music, painting, dance, theater and film etc, and coordinate with them.**
7. **The feel of universal fraternity and a broadened out-look towards fellow human beings are developed.**
8. **It enables students to recognize and appreciate their own flaws. As far as the study of literature is concerned the following quote is true;**
9. **“What you think; you become, What you feel; you attract, What you imagine; you create”- Buddha**

PROGRAMME SPECIFIC OUTCOME

1. **Students understand the relationship between culture-history and texts.**
2. **Helps them to identify the dominant and marginalized voices of the society.**
3. **Creates sensitivity among students towards the oppressed and the neglected community.**
4. **Study of literature is interlinked with study of language. Learning various language patterns, sentence structures, dialogues and vocabulary help them in communicating effectively in real life.**
5. **Students will be able to recognize and comprehend different styles of writings like political, journalistic, technical, commercial and web based .This helps them to emerge as perspective writers, editors, bloggers, teachers, etc.in future.**
6. **Students' aesthetic sensibility is kindled and their mental health is enriched through their exposure to diverse literary genres.**
7. **Study of feminism, eco-criticism, literatures of 3rd world Countries widen their perception in realizing the equality of gender and removes the undercurrent of supremacy, race, chauvinistic thoughts.**
8. **Students can manage to survive anywhere in the world. And they are capable of grabbing the job- opportunities available to them.**

COURSE OUTCOMES

LITERARY GENRES AND FORMS

LEARNING OBJECTIVES

1. Introduce the variety of genres and make students familiar with them
2. Help students to get a comprehensive understanding of different forms of literature
3. Develop expertise in understanding specific genres and their characteristics
4. Help the students apply their knowledge of literary forms in speaking, reading, and writing
5. Help students appreciate the scope and richness of literature and its varied forms

COURSE OUTCOMES

1. Exhibit literary competence to answer MCQs for different competitive Examinations.
2. Know about different literary forms
3. Appreciate literature through a study of these genres
4. Get an overall idea of the development and growth of the literary genres
5. Acquire skills in literary writing in the different types of genres of English literature.

ENGLISH FOR SECRETARIAL PRACTICE

LEARNING OBJECTIVES

1. Make the students grasp the strategies involved in developing effective communication.
2. Augment students' language proficiency to meet the demands of the job market.
3. Help students develop management skills and enhance their personality.
4. Empower students' skills and personality.
5. Students get a chance to uplift their skills and gain knowledge in handling correspondence independently.

COURSE OUTCOMES

1. **Read and interpret documents, plan and organise work processes, identify materials.**
2. **Perform tasks with due consideration.**
3. **Apply professional skill, knowledge and employability while performing jobs.**
4. **Understand the nature and scope for communication in different jobs.**
5. **Provide students a wide-range of writing knowledge in business communication**

SYMPHONY OF VERSE – I

LEARNING OBJECTIVES

1. **Familiarize the historical phases of English poetry**
2. **Provide glimpses of writers and texts pivotal to an understanding of Literature**
3. **Highlight the development of poetry across time**
4. **Enable them to recognize poetry from a variety of cultures, languages, and historic periods**
5. **Make them understand and appreciate poetry as a literary orm**

COURSE OUTCOMES

1. **Obtain a comprehensive knowledge of poetry over the ages to face MCQs of NET/SET examinations and other competitive examinations**
2. **Develop critical evaluation skills**
3. **Develop a deeper appreciation of cultural diversity by getting introduced to poetry from a variety of cultures**
4. **Develop their own creativity and enhance their writing skills**
5. **Identify the nuances of poetry that can be used when writing poems**

HARMONY OF PROSE I

LEARNING OBJECTIVES

1. Introduce the learners to the various themes and techniques explored by popular prose writers
2. Conceive ideas about political and social situations of different periods
3. Help the students acquire the social and ethical values through the study of prose
4. Introduce the historical, cultural, and social contexts in English prose
5. Enable the students to acquire an adequate exposure to important prose writers of the English language

COURSE OUTCOMES

1. Obtain a literary acumen that would help to face MCQs of NET/SET examinations and other competitive examinations
2. Understand the structure and techniques used in prose by different writers
3. Comprehend the social and cultural contexts of literature through prose writings
4. Appreciate the literary and philosophical thoughts of prose writers
5. Acquire a comprehensive knowledge of the various styles practised by the prose writers

ADVANCED ENGLISH GRAMMAR

LEARNING OBJECTIVES

1. Enable students to understand the rudiments of English Grammar.
2. Learners acquire a proper idea of Grammar and Linguistic conventions.
3. Obtain a distinct knowledge of how to use Grammar impeccably.
4. Enable them to write clearly, accurately and coherently.
5. Enhance their confidence in using English for communication.

COURSE OUTCOMES

1. Gain an explicit knowledge of how the language works.
2. Develop mastery over sentence pattern.
3. Enrich their vocabulary.
4. Acquire a strong command of the spoken and written language.
5. Develop competency over the right usage of English.

EFFECTIVE BUSINESS WRITING

LEARNING OBJECTIVES

1. To make students acquire basic business writing skills.
2. To cater to the needs of intended audience.
3. To produce more focused, polished and effective business documents.
4. To teach them how to maintain consistency in writing
5. To know how to communicate ides for maximum positive impact

COURSE OUTCOMES

1. The ability to write the business contents efficiently and appropriately.
2. To identify the skills of business writing.
3. Techniques for editing and proof reading.
4. To write effectively for their purpose: to inform, respond or persuade
5. The impact will be on their professional written communication.

MASTER OF ENGLISH

PROGRAMME OUTCOME

1. **This program enables students to develop competency in communication skills and gives them confidence in expressing their opinion, emotions and thoughts in English speaking environment.**
2. **Students are able to understand the social, economic and political standpoints of the literatures written and translated into English especially in the post- colonial era.**
3. **Students can surf, comprehend, and appraise and amalgamate information from a variety of manuscripts and websites.**
4. **Encourages them to approach literature from a critical and intellectual point of view in identifying potential research problems and arriving at a solution to them.**
5. **Their perception of other cultures, races and their way of life give them a deeper insight into the human psyche.**
6. **Students of English literature are better equipped to cross the barriers of other disciplines like music, painting, dance, theater and film etc, and coordinate with them.**
7. **The feel of universal fraternity and a broadened out-look towards fellow human beings are developed.**
8. **It enables students to recognize and appreciate their own flaws. As far as the study of literature is concerned the following quote is true;**
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PROGRAMME SPECIFIC OUTCOME

1. **Students understand the relationship between culture-history and texts.**
2. **Helps them to identify the dominant and marginalized voices of the society.**
3. **Creates sensitivity among students towards the oppressed and the neglected community.**
4. **Study of literature is interlinked with study of language. Learning various language patterns, sentence structures, dialogues and vocabulary help them in communicating effectively in real life.**
5. **Students will be able to recognize and comprehend different styles of writings like political, journalistic, technical, commercial and web based .This helps them to emerge as perspective writers, editors, bloggers, teachers, etc.in future.**
6. **Students' aesthetic sensibility is kindled and their mental health is enriched through their exposure to diverse literary genres.**
7. **Study of feminism, eco-criticism, literatures of 3rd world Countries widen their perception in realizing the equality of gender and removes the undercurrent of supremacy, race, chauvinistic thoughts.**
8. **Students can manage to survive anywhere in the world. And they are capable of grabbing the job- opportunities available to them.**

COURSE OUTCOMES

CHAUCER AND ELIZABETHAN AGE

LEARNING OBJECTIVES

1. **Acquaint the students with the literary forms woven in English language and the literary contribution during the age of Chaucer.**
2. **Enable the student to understand the historical and cultural heritage of the ages**
3. **Familiarize them with the canons of British literature produced during the age of Chaucer.**
4. **Help the students familiarize with the diction and the literary technique employed by the writers of the era.**
5. **Improve the skills of reading, analysing and understanding the specific scope of literature.**

COURSE OUTCOMES

1. **Obtain a literary acumen to race MCQs of competitive examinations.**
2. **Analyse literary texts**
3. **Understand significant developments in the literature during the period of Chaucer and Elizabeth.**
4. **Create imaginative and original literature in at least one genre.**
5. **Apply theoretical approaches to critical reading of literary texts.**

JACOBEAN AND RESTORATION AGE

LEARNING OBJECTIVES

1. **Gain awareness about the themes and writing styles of the period**
2. **Understand the socio political background of the age**
3. **Identify the influence of literature of the period on modern times**
4. **Understand the similarities of the themes till date**
5. **Gain the spirit of the ages**

COURSE OUTCOMES

1. Enjoy the writing of Milton
2. Learn the lateral thinking
3. Enjoy the humour of Goldsmith
4. Estimate the Metaphysical thinking
5. Learn about the greatness of the writers of the ages

PHONETICS AND HISTORY OF ENGLISH LANGUAGE

LEARNING OBJECTIVES

1. Enable the students to have an idea of the growth of English as the world language.
2. Enable the students to have an idea as a great borrower, an assimilator, and a propagator.
3. Enable the students to have an idea as an assimilator and a propagator.
4. Impart proficiency in pronunciation and oral communication.
5. Enable the students to train them in the sounds of the language

COURSE OUTCOMES

1. Know the different sounds and symbols of English.
2. Know structure of words.
3. Know the origin of Language.
4. Know about borrowing of words from other languages.
5. Know the value of language.

SHAKESPEARE

LEARNING OBJECTIVES

1. Enable the students to appreciate the genius of Shakespeare which has made him a classic of eternal value
2. Enable them to know the historical and present day value of Shakespeare, the Poet-dramatist
3. Trace the evolution of Shakespeare's vision and art
4. Help the student to acquire first-hand knowledge of the plays and poetry of Shakespeare
5. Make the students familiar with the critical judgment through ages

COURSE OUTCOMES

1. **Appreciate the literary and philosophical merits of Shakespeare's plays.**
2. **Acquire a comprehensive knowledge of the subtleties and nuances of the language**
3. **Appreciate the literary and philosophical merits of Shakespeare's plays.**
4. **Acquire a comprehensive knowledge of the subtleties and nuances of the language of Shakespeare.**
5. **Gather various interpretations by various critics of Shakespeare from the study of his plays and sonnets.**
6. **Acquire an idea of the Elizabethan Theatre**

PHONETICS AND HISTORY OF ENGLISH LANGUAGE

LEARNING OBJECTIVES

1. **Enable the students to have an idea of the growth of English as the world language.**
2. **Enable the students to have an idea as a great borrower, an assimilator, and a propagator.**
3. **Enable the students to have an idea as an assimilator and a propagator.**
4. **Impart proficiency in pronunciation and oral communication.**
5. **Enable the students to train them in the sounds of the language**

COURSE OUTCOMES

1. **Know the different sounds and symbols of English.**
2. **Know structure of words.**
3. **Know the origin of Language.**
4. **Know about borrowing of words from other languages.**
5. **Know the value of language.**

TECHNICAL WRITING

LEARNING OBJECTIVES

1. Understand the format requirements
2. Know how to present the information intelligently
3. Estimate the structure formation
4. Understand how to convey the message to the readers
5. Know how to articulate the subject matter lucid manner

COURSE OUTCOMES

1. Construct a variety of flawless sentences in English using appropriate grammatical structures
2. Earn their skills in Technical Writing
3. Draft effective research proposals/reports
4. Exploit the resources of English language for professional development
5. Develop effective introduction and conclusion

POST COLONIAL LITERATURE

LEARNING OBJECTIVES

1. Identify the key concepts and literary forms in postcolonial literatures.
2. Discuss and analyse colonial and postcolonial discourse.
3. Distinguish how race, class, gender, history and identity are presented and problematized in the literary texts.
4. Examine the texts critically in relation to postcolonial theory.
5. Evaluate and formulate arguments about postcolonial literatures and texts.

COURSE OUTCOMES

1. Appreciate literary works under Post-Colonial literature
2. Understand global relevance and significance of the Post-Colonial literature.
3. Appreciate the contribution of the writers with a common colonial past.
4. Critically analyse the relevance of the works in the light of globalization.

WORLD POPULAR SHORT STORIES

LEARNING OBJECTIVES

1. **Introduce students to some of the important short stories of the world.**
2. **Enable the students to study the various techniques and styles employed by the authors.**
3. **Help them in gaining some insights into the socio-cultural aspects of the regions from where the texts are chosen.**
4. **Stimulate the sympathetic / empathetic imagination by allowing them to see the world through other's eyes.**
5. **Induce them to apply their analytical, critical and creative skills in interpreting a work.**

COURSE OUTCOMES

1. **Develop a critical understanding of fiction.**
2. **Compare their indigenous literature and culture with other literatures and cultures**
3. **Gain knowledge about sensitive issues that are dealt with by the writers.**
4. **Get motivated to explore more works on their own.**
5. **Write critical, analytical and interpretive articles**

THE ROMANTIC AGE

LEARNING OBJECTIVES

1. **Enable the learners to get acquainted with the unique characteristics of the literature of the Romantic Ages.**
2. **Enable the learners to get acquainted the knowledge of the Literature.**
3. **Enable the learners to appreciate and enjoy nature.**
4. **Enable the learners to have a chance to learn aesthetic pleasure.**
5. **Enable the learners to know about the romantic movements.**

COURSE OUTCOMES

1. Know the salient features of romantic poetry.
2. Understand special poetic talents of the poets.
3. Know the features of romantic age.
4. Understand the literary background.
5. Know the basic aspects of life.

THE ROMANTIC AGE

LEARNING OBJECTIVES

1. Enable learners to understand the spirit of Victorian England and its influence on poetry
2. Enable the students to see the relevance of the Victorian times to modern times
3. Make the students to study in details the literary background of the Victorian era and its feature
4. Introduce through the key texts the development of the Victorian era
5. Keep a focus on the concept Victorian age

COURSE OUTCOMES

1. Equip their knowledge of The Victorian era
2. Analyse the literary texts.
3. Know the difference styles of the writers.
4. Have a critical mind.
5. Learn the technics of poetry

ECO LITERATURE

LEARNING OBJECTIVES

1. Enable the students to get acquainted with ecological issues.
2. Introduce them to eco literary theory so as to understand Eco literature.
3. Introduce the students, to Eco criticism, which is one of the most relevant critical theories of the post-modern era.
4. Trains them to approach social issues eco-critically.
5. Articulate a deeper understanding of topics, issues, and themes as expressed in environmental literature.

COURSE OUTCOMES

1. **Acquire knowledge in Environmental literature.**
2. **Apply various approaches to the aesthetic and poetic judgement.**
3. **Obtain new views on culture, including writers, books and reviewing them as connected to environment.**
4. **Get acquainted with intra-textual and the extra-textual form of new methodological sequence.**
5. **Student becomes aware of the cultural ecological system.**

FANTASY AND HORROR LITERATURE

LEARNING OBJECTIVES

1. **Familiarise the students to the theories and practice of fantasy literature**
2. **Enable the students to get acquainted with the various theories of fantasy literature**
3. **Make the students comprehend the different concepts, approaches, and critical practices of fantasy literature**
4. **Motivate the students to understand the importance of fantasy literary studies**

COURSE OUTCOMES

1. **Place representative works of science fiction and fantasy in a larger cultural, intellectual, and aesthetic context.**
2. **Analyse science fiction and fantasy themes, tropes, and modes of expression**
3. **Understand various fantasy literary theories.**
4. **Acquire knowledge about various fantasy genres.**
5. **Express in writing a sound knowledge of the development of science fiction and fantasy.**

ORAL NARRATIVES

LEARNING OBJECTIVES

1. Familiarize the genres of oral literature.
2. Enable them to find connection and continuities as well as to identify the disjuncture between oral and written texts viz. past and present.
3. Develop a sense of appreciation and the aesthetics
4. Encourage the free and independent thought to any research orientation
5. Develop the skills of interpretation, appreciation of literature as well as writing and presentation skills.

COURSE OUTCOMES

1. Identify the various genres of oral literature
2. Know India's age old literary tradition and cultural traditions through their exposure to oral literature in tradition in English
3. Oral literary text as a tool of cultural study will help students to challenge the differences in social traditions and scientific beliefs.
4. Learn various language patterns and dialogue forms of oral narratives.
5. Able to recognize and completed different variations regional languages and learn the narrative techniques employed by the story tellers, singers, genealogist etc.

TRANSLATION THEORY AND PRACTICE

LEARNING OBJECTIVES

1. Introduce the students to the different theories of translation
2. Enable the students to understand the significance of translation studies in general
3. Encourage the students to acknowledge the importance of translation in a multilingual country like India
4. Familiarize them with the theories of translation and the current practices
5. Inspire the students to critically evaluate and appreciate the translated genres

COURSE OUTCOMES

1. **Understand the significance of translation work in literary field and acknowledge the various theories of translation studies**
2. **Understand how literary translation can work as a medium for cultural exchange between countries**
3. **Obtain skill to translate different genres and forms of literary works, applying the different theories**
4. **Evaluate and appreciate translated literary works**
5. **Obtain literary acumen in answering multiple choice questions for SET/NET and other competitive examinations**

WOMENS WRITING

LEARNING OBJECTIVES

1. **Introduce the learners to the major literary endeavours of women authors.**
2. **Initiate discussion on issues addressed in the works of women authors.**
3. **Know the recent developments, in terms of themes, and narrative techniques adapted by the women writers.**
4. **Enable them to analyse literary texts through the perspective of gender.**
5. **Know the central points of womanism and feminism.**

COURSE OUTCOMES

1. **Interpret literary works by women authors at an advanced level**
2. **Compare how women authors have represented women in their writings and their relationship with male counterpart.**
3. **Know how women have been marginalized and denied a voice of their own in canonical literature.**
4. **Understand how women's writings reflect sociological issue.**
5. **Apprehend women author's commentary about societal norms.**

BACHELOR OF COMPUTER APPLICATION

COURSE OUTCOMES

PROGRAMMING IN C

LEARNING OBJECTIVES

1. To understand simple algorithms
2. To understand language constructs
3. To understand and develop programming skills in C.
4. To understand the basic concepts of decision making and looping statements.
5. To understand the concepts of arrays, structures, union, pointers and files.

COURSE OUTCOMES

1. The Student will be able to understand the concepts of Constants, Variables, and Data Types, Operators and Expressions
2. The Student will be able to understand the concepts of Managing Input and Output Operations, Decision Making and Branching, Decision Making and Looping.
3. The Student will be able to understand the concepts of Arrays, Character Arrays and Strings, User Defined Functions.
4. The Student will be able to understand the concepts of Structure and Unions, Pointers, File Management in C.
5. The Student will be able to understand the concepts of Fundamental Algorithms, Factoring Methods.

DIGITAL COMPUTER FUNDAMENTALS

LEARNING OBJECTIVES

1. Develop an understanding of digital circuit design and analysis.
2. Learn design techniques for working with digital electronic devices, and their application to solving problems.

3. Learn analysis skills to effectively report on the design, analysis and data of projects so that others can understand their methodology and results.
4. Become familiar with digital design, analysis and simulation tools.
5. Develop effective written communication skills using various media tools.

COURSE OUTCOMES

1. Identify the logic gates and their functionality.
2. Perform number conversions from one system to another system.
3. Design basic electronic circuits (combinational circuits).
4. Perform a comparative analysis of the components of different memory UNITs.
5. Perform number conversions.

PROGRAMMING IN C LAB

LEARNING OBJECTIVES

1. Apply the specification of syntax rules for numerical constants and variables, data types.
2. Usage of Arithmetic operator, Conditional operator, logical operator and relational operators and other C constructs.
3. Write C programs using decision making, branching, looping constructs
4. Apply and Write C programs to implement one dimensional and two dimensional arrays
5. Writing programs using functions

COURSE OUTCOMES

1. Read, understand and trace the execution of programs written in C language.
2. Write the C code for a given algorithm.
3. Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor.
4. Write programs that perform operations using derived data types.
5. Know concepts in problem solving.

C++ AND DATA STRUCTURES

LEARNING OBJECTIVES

1. To Understand the Principles of Object Oriented Programming
2. To understand the concepts of Classes and Objects
3. To Understand the Concepts of Inheritance
4. To Understand the Concepts of Data Structures
5. To Understand in developing C++ programs

COURSE OUTCOMES

1. To learn the basic concepts Object oriented programming.
2. To learn the control structures and arrays.
3. To implementing the constructors & File opening and closing.
4. To learn the fundamentals of stack & Queue operations.
5. To learn the concepts of graphs, sorting & searching methods.

COMPUTER GRAPHICS

LEARNING OBJECTIVES

1. To understand the basic concepts of drawing algorithms.
2. To understand the concept of Attributes & 2D transformations
3. To understand clipping concepts & its types.
4. To understand the concepts of 3D transformations.
5. To understand the surface detection methods.

COURSE OUTCOMES

1. To Learn about the basics of graphics drawings
2. To learn about the attributes & its transformations.
3. To learn about the clipping & its types.
4. To learn about the 3D transformations.
5. To learn about the surface detection methods.

INTERNET AND ITS APPLICATIONS

LEARNING OBJECTIVES

1. Illustrate basic concepts of Internet.
2. Understand Apply the necessary of Internet Explorer.
3. Analyse, design and implement Email system.
4. Demonstrate the Hyper Text Mark-up languages
5. To learn the E-marketing & its usage.

COURSE OUTCOMES

1. Explain basic usages of internet and its applications.
2. Define and demonstrate the use of Web Browsers.
3. To Explain the E-Mail applications.
4. To demonstrate the HTML & its tags.

BACHELOR OF COMPUTER SCIENCE

PROGRAMME OUTCOME

- **An ability to apply knowledge of computing and mathematics appropriate to the discipline.**
- **An ability to identify, formulate, and develop solutions to computational challenges.**
- **An ability to design, implement, and evaluate a computational system to meet desired needs within realistic constraints.**
- **An ability to function effectively on teams to accomplish shared computing design, evaluation, or implementation goals.**
- **An understanding of professional, ethical, legal, security, and social issues and responsibilities for the computing profession.**
- **An ability to communicate and engage effectively with diverse stakeholders.**
- **An ability to analyse impacts of computing on individuals, organizations, and society.**
- **Recognition of the need for and ability to engage in continuing professional development.**
- **An ability to use appropriate techniques, skills, and tools necessary for computing practice.**

PROGRAMME SPECIFIC OUTCOME

- **An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modelling and design of computational systems in a way that demonstrates comprehension of the trade-offs involved in design choices.**
- **An ability to apply design and development principles in the construction of software systems of varying complexity.**

COURSE OUTCOMES

FUNDAMENTALS OF COMPUTERS

LEARNING OBJECTIVES

1. An understanding of basic concepts of computer science.
2. An introduction to the fundamentals of hardware, software and programming.
3. To understand the concept of Number System.
4. To know the types of memory for storage purpose.
5. To understand the types of input devices to feed the data for action

COURSE OUTCOMES

1. Explain the needs of hardware and software required for a computation task.
2. Can have the knowledge about the generations of computers.
3. Understand the concept of output device.
4. Having the skill about the various types of languages.
5. Understand the concept of file processing.

PROGRAMMING IN C

LEARNING OBJECTIVES

1. To Provide complete knowledge of C language
2. Students will be able to develop logics which will help them to create programs, applications in C
3. By learning the basic programming constructs they can easily switch over to any other language in future.
4. To understand the concept of function types
5. To acquire knowledge about pointers.

COURSE OUTCOMES

1. To understand the concepts of data types and operators
2. To analyse the usages of the various programming constructs and functions

3. To interpret the importance of arrays and pointers
4. To identify the purpose of structures, unions, macros and bit fields
5. To develop programs using dynamic memory allocation and data file operations

PROGRAMMING IN C LAB

LEARNING OBJECTIVES

1. To Develop Programs In C Using Basic Constructs.
2. Familiarize the Different Control And Decision Making Statements In “C”
3. Build Programs Using Arrays And Strings.
4. Provide Knowledge On Working With Files And Functions.
5. To Understand The Concepts Of Structures.

COURSE OUTCOMES

1. Demonstrate knowledge on C programming constructs.
2. Study all the Basic Statements in C Programming.
3. Practice the usage of branching and looping statements.
4. Apply string functions and arrays usage.
5. Analysis the use of files and structures.

PROGRAMMING WITH C++

LEARNING OBJECTIVES

1. Object Oriented concepts, C++ language features.
2. Classes, Objects, Inheritance, and Polymorphism.
3. Functions, Constructors, Streams and Files

COURSE OUTCOMES

1. Able to understand OOPs concept, C++ language features.
2. Able to understand and apply the concepts of Classes &Objects, friend function, constructors and destructors in program design.

3. Able to design & implement various forms of inheritance, and String classes.
4. Able to apply and analyse operator overloading, and runtime polymorphism.
5. Able to analyse and explore various Stream classes, I/O operations and Exception handling.

PROGRAMMING WITH C++

LEARNING OBJECTIVES

1. Identify and practice the object-oriented programming concepts and techniques,
2. Practice the use of C++ classes and class libraries, arrays, vectors, inheritance and file I/O stream concepts.

COURSE OUTCOMES

1. Creating simple programs using classes and objects in C++.
2. Implement Object Oriented Programming Concepts in C++.
3. Develop applications using stream I/O and file I/O.
4. Implement simple graphical user interfaces.
5. Implement Object Oriented Programs using templates and exceptional handling concepts

DIGITAL LOGIC FUNDAMENTALS

LEARNING OBJECTIVES

1. To understand the basic concepts of Digital Circuits and Logic design of Computers.

COURSE OUTCOMES

1. To learn the basic design of Computers, Number Systems and Binary Codes.
2. To understand the Boolean algebra and the Logic Gates Operations.
3. To Learn and practice the K-Map Simplifications.

4. To study the Design Procedure of Adders, Subtractors and Multilevel Circuits.
5. To understand Flip flops, its types and the design of Counters.

FUNDAMENTALS OF ALGORITHMS

LEARNING OBJECTIVES

1. To know how to analyse the performance of algorithms.
2. To understand how the choice of data structures and algorithm design methods impacts the performance of programs.
3. To solve problems using algorithm design methods such as the greedy method, divide and conquer, dynamic programming, and backtracking.

COURSE OUTCOMES

1. To learn the method of analysing algorithms.
2. To understand Recursion and backtracking principles.
3. To gain knowledge on the tree and graph algorithms.
4. To understand the sorting and searching algorithms.
5. To learning the working principles of Greedy, Divide-and-Conquer and Dynamic programming algorithms.

SYSTEM SOFTWARE

LEARNING OBJECTIVES

1. To understand the relationship between system software and machine architecture.
2. To know the design and implementation of assemblers
3. To know the design and implementation of linkers and loaders.
4. To have an understanding of macroprocessors.
5. To have an understanding of system software tools.

COURSE OUTCOMES

1. Understand the relationship between system software and machine architecture.
2. Know the design and implementation of assemblers
3. Know the design and implementation of linkers and loaders.
4. Understanding of macroprocessors and its implementation.
5. Understanding of system software tools

MASTER OF COMPUTER SCIENCE

PROGRAMME OUTCOME

PO1: Apply knowledge of Computing, Mathematics including discrete mathematics, Probability and Queuing theory, statistics and basic sciences to provide solutions to complex problems.
PO2: Analyze problems with varying complexities for engineering applications.
PO3: Design and develop software/hardware components or systems for applications.
PO4: Study, investigate, interpret data and perform analysis of complex contemporary problems.
PO5: Model complex engineering problems and find solutions using appropriate techniques and tools.
PO6: Provide computer based solutions for engineering problems without compromising public health, safety, cultural, social and legal aspects.
PO7: Analyze the local and global impact of environmental friendly hardware/software applications for sustainable development.
PO8: Practice code of ethics in personal, social and professional activities.
PO9: Perform effectively as an individual and as a member or a leader in a multidisciplinary team to accomplish a goal.
PO10: Connect a range of audience with an effective oral and written communication.
PO11: Ensure professional development growth through contextual, reflective and lifelong learning.
PO12: Effectively manage projects of multidisciplinary nature as a member or a leader in achieving financial goal

PROGRAMME SPECIFIC OUTCOME

1. **Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.**
2. **Use professional engineering practices, strategies and tactics for the development, operation and maintenance of software.**
3. **Provide effective and efficient real time solutions using acquired knowledge in various domains.**

COURSE OUTCOMES

DESIGN AND ANALYSIS OF ALGORITHMS

COURSE OBJECTIVES

LO1 - Learning basic concepts of Algorithm

LO2 - Method of sorting algorithms analysed

LO3 - To analyse Greedy Algorithm and Knapsack Problem

LO4 - To analyse Dynamic Programming

LO5 - To learn effective problem solving in computing applications And analyse the algorithmic procedure to determine the computational complexity of algorithms.

COURSE OUTCOMES

At the end of the course, the student will be able to

CO1 Acquire knowledge on the concepts of Algorithm

CO2 Implementing various Algorithmic and sorting approach

CO3 Able to develop Greedy Algorithm

CO4 Acquire knowledge in Dynamic Programming

CO5 Develop back tracking methods and its applications

ADVANCED JAVA PROGRAMMING

COURSE OBJECTIVES

LO1 To get familiar with the concept of packages, interface

LO2 Able to understand Inheritance and Exception handling in java.

LO3 To learn the concept of Graphical User Interface (GUI)

LO4 Analyse Network Programming, and database manipulation

LO5 Student will be able to develop web application using Java Servlet and Java Server Pages technology

COURSE OUTCOMES

At the end of the course, the student will be able to

CO1 **Identify classes, objects, members of a class and the Relationships among them needed for a finding the solution to specific problem.**

CO2 **Use the Java language for writing well-organized, complex computer programs with both command line and graphical user interfaces**

CO3 **Identify and describe common abstract user interface components to design GUI in Java using Applet & AWT along with response to events**

CO4 **Apply Servlets and JSP for creating Web based applications using JDBC**

CO5 **Design and Develop various application by integrating any of Servlets, JSPs, Swing and Applet using Database**

ADVANCED DATABASE MANAGEMENT SYSTEM

COURSE OBJECTIVES

LO1 **To understand the basic concepts and terminology related to DBMS and Relational Database Design.**

LO2 **To the design and implement Distributed Databases.**

LO3 **To apply normalization techniques to improve database design.**

LO4 **To understand advanced DBMS techniques to construct tables and write effective queries, forms, and reports.**

LO5 **Analyze a T/O based techniques for designing the database.**

COURSE OUTCOMES

CO1 **Exposure for students to write complex queries including full outer joins, self-join, sub queries, and set theoretic queries.**

CO2 **Knowhow of the file organization, Query Optimization, Transaction management, and database administration techniques.**

CO3 **Elaborate the concept of Concurrency control and Failure Recovery.**

CO4 **Illustrate concept of CC on B++ tree, Optimistic CC**

CO5 **Use Modern database such as XML and relational databases.**

ALGORITHM LAB USING JAVA

LEARNING OBJECTIVES

- **LO1** Implement Sorting algorithm methods
- **LO2** Analyze DFS and BFS Algorithm methods
- **LO3** To evaluate Back Tracking and Greedy Algorithm
- **LO4** Implement Dijkstra's Algorithm
- **LO5** To Develop Dynamic Programming

COURSE OUTCOMES

- **CO1** To get Knowledge about Sorting Algorithm
- **CO2** To acquire techniques about DFS and BFS Algorithmic approach
- **CO3** To perform various Back track Programming techniques
- **CO4** To acquire knowledge in Dijikstra' s Algorithm
- **CO5** To become a better knowledge in algorithm

ADVANCED RDBMS LAB

LEARNING OBJECTIVES

- **LO1** To explore the features of a Database Management Systems.
- **LO2** To interface a database with front end tools.
- **LO3** To understand the internals of a database system
- **LO4** To use of different Evaluation Plans
- **LO5** To interface of Concurrency & Transactions & Big Date Analysis Using Hadoop.

COURSE OUTCOMES

- **CO1** Ability to use databases for building web applications.
- **CO2** Gaining knowledge about the internals of a database system.
- **CO3** To use of ER Modelling, Database Design & Normalization
- **CO4** Implement the plan using Web Applications Using PHP & My SQL
- **CO5** Analysis various Query Evaluation plans, Big Data Analysis

COMPILER DESIGN

COURSE OBJECTIVES

LO1 Discover principles, algorithms and techniques that can be used to construct various phases of compiler.

LO2 Acquire knowledge about finite automata and regular expressions

LO3 Learn context free grammars, compiler parsing techniques.

LO4 Explore knowledge about Syntax Directed definitions and translation scheme

LO5 Understand intermediate machine representations and actual code generation

COURSE OUTCOMES

CO1 To provide sound knowledge in Lexical Analysis

CO2 To understand the importance of context-free Grammar

CO3 To explore knowledge in Semantic Analysis

CO4 To know the Variants of Syntax trees

CO5 To identify Code generations and code optimization

HUMAN COMPUTER INTERACTION

COURSE OBJECTIVES

LO1 To impart knowledge related to the various concepts, methods of Human Computer Interaction techniques

LO2 Helps to Understand Interaction and Design basics

LO3 Able to understand Design rules

LO4 Approaches to user support Adaptive help systems – Designing user support systems.

LO5 Implementing new ideas and users support

COURSE OUTCOMES

CO1 Discuss the conceptual, practical, and ethical issues involved in evaluation

CO2 Describe what interaction design is and how it relates to human computer interaction and other fields

THEORY OF COMPUTATION I

COURSE OBJECTIVES

LO1 To introduce students to the mathematical foundations of computation including automata theory

LO2 Ability to understand the theory of formal languages and grammars.

LO3 To understand the notions of algorithm, decidability, complexity and computability

LO4 To enhance Students ability to understand and conduct mathematical proofs for computational algorithms

LO5 To Understand Un decidable problems about turning machine

COURSE OUTCOMES

CO1 Analyse and design finite automata, pushdown automata.

CO2 To Analyse Turing machines, formal languages and grammars

CO3 Demonstrate their understanding of key notions, such as algorithm, computability, decidability and complexity through problem solving.

CO4 To Prove the basic results of the Theory of Computation

CO5 To State and explain the relevance of the Church-Turing thesis

ADVANCED WEB TECHNOLOGY

LEARNING OBJECTIVES

LO1 Explore the backbone of webpage creation by developing .NET skill.

LO2 Enrich knowledge about HTML control and web control classes

LO3 Provide depth knowledge about ADO.NET

LO4 Understand the need of usability, evaluation methods for web services

LO5 Developing Component based Programming

COURSE OUTCOMES

CO1 Acquire knowledge on the concepts of .Net

CO2 Implementing various HTML controls and Visual studio projects

CO3 Able to develop applications using ADO .Net

CO4 Acquire knowledge in web services

CO5 Develop websites which contains adaptive web pages

DATA MINING AND BUSINESS INTELLIGENCE

LEARNING OBJECTIVES

LO1 Demonstrate an understanding of the importance of data mining

LO2 Understand principles of business intelligence

LO3 Organize and prepare the data needed for data mining using pre-processing techniques

LO4 Perform exploratory analysis of the data to be used for mining

LO5 Implement the appropriate data mining methods like classification, clustering or Frequent Pattern mining on large data sets.

COURSE OUTCOMES

CO1 Analyse the concept of Data mining, Data Warehouse, Business Intelligence and OLAP

CO2 Demonstrate data pre-processing techniques and application of association rule mining algorithms

CO3 Applyvarious classification algorithms and evaluation of classifiers for the given problem

CO4 Analyse data mining for various business intelligence applications for the given problem

CO5 Apply classification and regression techniques for the given problem.

DISTRIBUTED OPERATING SYSTEM

COURSE OBJECTIVES

LO1 To study Distributed operating system concepts

LO2 To understand hardware, software and Communication in Distributed OS

LO3 To learn the distributed resource management components.

LO4 Practices to learn concepts of OS and Program the principles of Operating Systems

LO5 To Learn Linux Operating System

COURSE OUTCOMES

CO1 Acquire knowledge on the concepts advanced operating system and approaches

CO2 Implementing Lamport's Algorithm – Token Based Algorithms – Distributed Deadlock Detection Algorithm

CO3 Gaining knowledge Distributed Resource Management–Distributed File Systems

CO4 Acquire knowledge in Failure Recovery and Fault Tolerance

CO5 To know the Features of Android OS, Ubuntu, Google Chrome OS and Linux operating systems.

ADVANCED WEB TECHNOLOGIES LAB

COURSE OBJECTIVES

LO1 Create simple Web service Programs

LO2 Develop windows application based web services

LO3 Accessing Database in Web services

LO4 To create an application that simulates sending a SOAP message

LO5 Develop a Web intranet/internet based Web Service Client

COURSE OUTCOMES

CO1 Acquire Excellent knowledge and execute simple web service programs

CO2 Implementing various techniques in web services

CO3 Able to develop applications based web services from existing programs

CO4 Using SOAP techniques

CO5 Develop Client server based web Services

DATA MINING LAB USING R

COURSE OBJECTIVES

LO1 To introduce the concept of data Mining as an important tool for enterprise data management and as a cutting-edge technology for building competitive advantage.

LO2 To enable students to effectively identify sources of data and process it for data mining.

LO3 To learn how to gather and analyze large sets of data to gain useful business understanding through the R language.

LO4 To impart skills that can enable students to approach business problems.

LO5 To analytically identifying opportunities to derive business value from data.

COURSE OUTCOMES

CO1 Use different features of R Programming language

CO2 Preprocess the data for mining for any dataset.

CO3 Determine association rules.

CO4 Model the classifiers for classifying various dataset.

CO5 Examine clusters from the available data.

CRYPTOGRAPHY AND NETWORK SECURITY

LEARNING OBJECTIVES

LO1 To understand basics of Cryptography and Network Security.

LO2 To be able to secure a message over in secure channel by various means

LO3 To learn about how to maintain the Confidentiality, Integrity and Availability of a data.

LO4 To understand various protocols for network security to protect against the threats in the networks.

LO5 To Understand Intruders and detection Techniques

COURSE OUTCOMES

CO1 Provide security of the data over the network.

CO2 Do research in the emerging areas of cryptography and network security.

CO3 Implement various networking protocols.

CO4 Protect any network from the threats in the world.

CO5 To protect from intruders and Virus Threats

OPEN SOURCE COMPUTING

LEARNING OBJECTIVES

LO1 To understand the features of PHP

LO2 To develop the different applications using PHP

LO3 To demonstrate the applications using PHP with Mysql

LO4 To understand the concepts of Perl

LO5 To develop the applications using Perl

COURSE OUTCOMES

CO1 Students are able to understand the features of PHP

CO2 Students are able to develop the different applications using PHP

CO3 Students are able to demonstrate the applications using PHP with Mysql

CO4 Students are able to understand the concepts of Perl

CO5 Students are able to develop the applications using Perl

SOFT COMPUTING

LEARNING OUTCOMES

LO1 Familiarize with soft computing concepts

LO2 Introduce and use the idea of fuzzy logic and use of heuristics basedon human experience.

LO3 Familiarize the Neuro-Fuzzy modeling using Classification and Clustering techniques.

LO4 Learn the concepts of Genetic algorithm and its applications Acquire the knowledge of Rough Sets.

LO5 Introduce students to Bi-directional Associative Memory.

COURSE OUTCOMES

CO1 Identify the difference between Conventional Artificial Intelligence to Computational Intelligence.

CO2 Understand fuzzy logic and reasoning to handle and solve engineering problems..

CO3 Apply the Classification and clustering techniques on various applications.

CO4 Understand the advanced neural networks and its applications.

BACHELOR OF BOTANY

PROGRAMME OUTCOME

- **Critical Thinking: Deep thinking and ideas over the facts of biology particularly on plant science to make it a more productivity and vital useful one.**
- **Effective Communication: Becoming a effective communicator in general and in specific to convey the scientific knowledge with reference to botany orally and in writing to the society.**
- **Social Interaction: Acquired social interaction skill to interact themselves and with others with social vision.**
- **Effective Citizenship: Being a Good and responsible learner, honesty pupil, having self-respect and respect other s and also having great social concern.**
- **Ethics: Being a follower of ethics of our own social and soil and helping others to follow the ethics your own in all sorts.**
- **Environment and Sustainability: First of all being a highly responsible and following person of environment with respect to save (conserve) and development and make others to be aware of the need of the existence of flourished environment and its continuous preservation for the wellbeing of the world.**
- **Self-directed and Life-long Learning: Being a self-realized, self-controlled and directed pupil for the successful and continuous learner to complete in the society in way of getting life source and help others for their wellbeing.**

PROGRAMME SPECIFIC OUTCOME

- **To teach botany extensively and exhaustively for the students, who are majority from socially, economically, backward sector.**
- **Make the students aware of the novel branches and applied aspects of the subject of plant science.**
- **Make the students well verse about the absolute applied aspects of botany like Mushroom cultivation, Horticulture, Gardening, Plant Breeding, Tissue culture and set self-employment and make others self-employer in the specific areas of botany.**
- **Make the students more enthusiastic in their higher and research studies, getting employment in concerned field and more productivity orient.**

COURSE OUTCOMES

PHYCOLOGY AND BRYOLOGY

LEARNING OBJECTIVES

1. To understand the major groups of cryptogrammic plants and their characteristics.
2. To study their interrelationships and trace their evolutionary trends.
3. To know the classification, life cycle and economic importance of Algae.
4. To understand Bryophytes and their salient features.
5. To learn the classification and economic importance of Bryophytes.

COURSE OUTCOMES

1. Acquire thorough knowledge on the salient features of Algae and Bryophytes.
2. Learn the major classes, types, structure and reproduction of various genera.
3. Conserve them in their natural environment.
4. Acquire the basic knowledge of the evolutionary relationship between algae and bryophytes.
5. Identify the economic importance of Algae and Bryophytes.

MYCOLOGY AND LICHENOLOGY

LEARNING OBJECTIVES

1. To acquire thorough knowledge on the salient features of fungi and lichens.
2. To learn the major classes, types, structure and reproduction of various genera.
3. To study the classification, characteristic features, distribution, and reproduction cycle of fungi and lichens
4. To know the ecological and economic importance of fungi and lichens
5. To understand the concept of lichens as indicator for air pollution.

COURSE OUTCOMES

1. Acquire thorough knowledge on the salient features of Fungi and Lichens.
2. Learn about the morphology, structure, reproduction and life cycle of Fungi and Lichens.
3. Study the various classes and major types of Fungi and variations in life cycles.
4. Understand the fundamentals of economic importance and biomedical applications of Fungi and Lichens.
5. To learn about the role of lichens as pollution indicators.

MICROBIOLOGY AND PLANT PATHOLOGY

LEARNING OBJECTIVES

1. To study the History and scope of microbiology.
2. To understand the classification, structure, bacteria and viruses.
3. To create the awareness on economic importance of microorganisms.
4. To study the classification and symptoms of plant diseases.
5. To study the infection, casual organism and control of some diseases.

COURSE OUTCOMES

1. Citrus canker
2. Tikka disease of groundnut
3. Red rot of sugarcane
4. Bunchy top of banana.

HORTICULTURE

LEARNING OBJECTIVES

1. To understand the salient features of Horticulture
2. To know the importance of cultivating horticultural crops.
3. To learn plant propagation for horticulture.
4. To promote educational and training opportunities and encourage the development of all disciplines within Horticulture
5. To Familiarize with the improving of the environment

COURSE OUTCOMES

1. Understand characteristics of ornamental plants
2. Provide employment opportunities, often in rural areas
3. Improve and manage the environment sustainably
4. Practice vegetative plant propagation
5. Gain knowledge of growth regulators, promoters and common diseases of Horticultural crops.

SEED TECHNOLOGY

LEARNING OBJECTIVES

1. To acquire knowledge about seed technology
2. To realize the importance of seed technology in over all upgrading of the seed quality.
3. To know the varies components and techniques of seed Technology
4. To gain knowledge about laws and rules of seed and seed technology.
5. To understand the concept of certified seeds

COURSE OUTCOMES

1. Acquire knowledge about seed technology
2. Realize the importance of seed technology in over all upgrading of the seed quality.
3. Understand the various components and techniques of seed Technology
4. Analyse the laws and rules of seed and seed technology.
5. Apply the concept of certified seeds.

MEDICINAL BOTANY

LEARNING OBJECTIVES

1. To educate, study, develop, cultivate, benefits of medicinal plants
2. To understand salient features of Medicinal plants
3. To acquire the knowledge about Siddha, Aurvedha and Unani system of medicines
4. To stimulate Agro ecological practices.
5. To support research and the implementation of medicinal plant programmes and projects in the municipalities

COURSE OUTCOMES

1. **Promote cultivation and conservation of medicinal plants.**
2. **Identify the medicinal plants to be conserved**
3. **Analyse the various systems of medicines**
4. **Describe the process drug production**
5. **Manage and maintain herbal gardens.**

MASTER OF BOTANY

PROGRAMME OUTCOME

- **PO1: Critical Thinking: Deep thinking and ideas over the facts of biology particularly on plant science to make it a more productivity and vital useful one.**
- **PO2: Effective Communication: Becoming an effective communicator in general and in specific to convey the scientific knowledge with reference to botany orally and in writing to the society.**
- **PO3: Social Interaction: Acquired social interaction skill to interact themselves and with others with social vision.**
- **PO4: Effective Citizenship: Being a Good and responsible learner, honesty pupil, having self-respect and respect other s and also having great social concern.**
- **PO5: Ethics: Being a follower of ethics of our own social and soil and helping others to follow the ethics your own in all sorts.**
- **PO6: Environment and Sustainability: First of all being a highly responsible and following person of environment with respect to save (conserve) and development and make others to be aware of the need of the existence of flourished environment and its continuous preservation for the wellbeing of the world.**
- **PO7: Self-directed and Life-long Learning: Being a self-realized, self-controlled and directed pupil for the successful and continuous learner to complete in the society in way of getting life source and help others for their wellbeing.**

PROGRAMME SPECIFIC OUTCOME

- **PSO1: To teach botany extensively and exhaustively for the students, who are majority from socially, economically, backward sector.**
- **PSO2: Make the students aware of the novel branches and applied aspects of the subject of plant science.**
- **PSO3: Make the students well verse about the absolute applied aspects of botany like Mushroom cultivation, Horticulture, Gardening, Plant Breeding, Tissue culture and set self-employment and make others self-employer in the specific areas of botany.**

COURSE OUTCOMES

PHYCOLOGY, MYCOLOGY AND BRYOLOGY

LEARNING OBJECTIVES

1. To understand the General Characters, Economic importance of Algae
2. To understand the diversity, structure and Life cycle of Algae.
3. To understand the General features, diversity, reproduction and of Fungi
4. To acquire the knowledge of General Characters, diversity, reproduction and of Lichens.
5. To understand the General Characters, diversity, reproduction and of Bryophytes

COURSE OUTCOMES

1. Learn about Thallus organization, Reproduction, and Lifecycles in Algae.
2. Knowing cultivation of important seaweeds, mass culture of microalgae and their use in waste land reclamation, Bio-fouling and Bio-remediation.
3. Learn about detailed study about some fungal forms belong to different classes of fungi
4. Acquiring general characters, Morphology, reproduction and Life history of Lichens
5. Understanding general character of Bryophytes and Conduction in bryophyte.

MICROBIOLOGY AND PLANT PATHOLOGY

LEARNING OBJECTIVES

1. To study the different types of microorganisms and their activities
2. This course is introduced to make the students understand and appreciate the fundamental principles of basic and applied microbiology.

3. To understand and realize the classification, structure, reproduction and economic Importance of Bacteriology and Virology
4. To study the mechanism of infection and colonization of plant diseases
5. To study disease cycle and control measures of various plant diseases.

COURSE OUTCOMES

1. Understand the classification and culture techniques of microbes.
2. Students will also study the growth and control of microbes as well as different bacteriological techniques involved in microbiology.
3. Students will learn about the biomolecules by studying their structures and types.
4. Identify common plant diseases and their control measures.
5. Know about microbes and their life to draw inspirations to hire them in applications.

PTERIDOLOGY, GYMNOSPERMS AND PALAEOBOTANY

LEARNING OBJECTIVES

1. To understand the diversity, structural organization, reproduction and evolution of organs of Pteridophytes & Gymnosperms.
2. To understand the diversity, structural organization, reproduction and evolution of organs of Gymnosperms
3. To acquire the knowledge of the paleobotany.
4. To understand the Geological time Scale
5. To develop the skill on studying of fossil Specimens

COURSE OUTCOMES

1. Understand the diversity, structural organization, reproduction and evolution of organs of Pteridophytes.
2. Knowledge about ferns
3. Understand the diversity, paleoclimate and early fossil members of Gymnosperms.

4. Understand the diversity, structural organization, reproduction and evolution of organs of Gymnosperms.
5. Understand the Geological time Scale, Develop the skill on studying of fossil Specimens

MUSHROOM CULTIVATION

LEARNING OBJECTIVES

1. To study the morphology and types of Mushrooms.
2. To Identify edible types in mushroom, Selection of appropriate cultivation sites
3. To know the nutrient value of mushroom
4. To aware the identification of edible and poisonous Mushrooms.
5. Designing and construction of Mushroom Farm, Packaging, storing and grading of Mushrooms.

COURSE OUTCOMES

1. Understanding of prospects of Mushroom cultivation
2. The students will gain the knowledge of cultivation of different types of edible Mushroom.
3. The students will gather concepts on the methods of harvesting of Mushroom and methods of grading, packing and storing of Mushroom
4. Students will be able produce spawn on their own.
5. Learned the prospects and scope of mushroom cultivation in small scale industry

SILVICULTURE AND SEED TECHNOLOGY

LEARNING OBJECTIVES

1. Understanding of key ecological concepts related to forest stand development and the response of forest vegetation to silvicultural practices
2. Students will demonstrate a familiarity with silvicultural terminology and be able to discuss practical application of regeneration techniques, intermediate treatments, and alternative silvicultural systems;

3. To develop the skill of Silviculture Systems
4. Students will be able to develop a silvicultural prescription to accomplish identified ownership objectives,
5. To understand the Germination, Viability and Storage of Seed

COURSE OUTCOMES

1. Understand the importance of forests
2. Acquire the knowledge of Regeneration and Plantation of Forests
3. Develop the skill of Silviculture Systems
4. Understand the process and principles of Seed technology
5. Understand the Germination, Viability and Storage of Seed

INDUSTRIAL MICROBIOLOGY

LEARNING OBJECTIVES

1. To acquire the knowledge of scope of industrial microbiology
2. To understand the importance of microbes, basics of a sterilization, fermenter design and types.
3. To study the avenues of exploiting microbes in bioconversion technology.
4. To study the industrial production, product recovery and commercial application in fermentation.
5. To develop the skill on production of Microbial metabolites

COURSE OUTCOMES

1. To acquire the knowledge of scope of industrial microbiology
2. Students will gain knowledge about the different cell organelles of microorganisms and their detailed functions.
3. Students will understand the importance of microbes, basics of a sterilization, fermenter design and types.
4. To study the avenues of exploiting microbes in bioconversion technology.
5. To study the industrial production, product recovery and commercial application in fermentation.
6. To develop the skill on production of Microbial metabolites.

ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS

LEARNING OBJECTIVES

1. To provide an insight into the internal structure and reproduction of the most evolved group of plants, the Angiosperms;
2. To get an insight in to the histochemistry with special reference to various stains and staining procedures
3. To study and understand morphological, internal structure of diverse plant groups for the evolution of structure-functions and their application
4. To understand the origin, structure, growth, development and reproduction of angiosperms.
5. To understand the development of Dicots and Monocots

COURSE OUTCOMES

1. Acquire knowledge about the structure and functional development of cells and tissues
2. Are able to apply the concepts of Plant Anatomy to better understand the structural organization and functions of various tissue systems of plant body.
3. Understand the difference between normal and anomalous secondary growth in dicots and monocot plants
4. Learn the process of micro and megasporogenesis to embryo formation in seeds.
5. Improving knowledge about parthenocarpy to introduce new varieties in Horticulture.

PLANT TISSUE CULTURE

LEARNING OBJECTIVES

1. To understand and the production of exact copies of plants that produce particularly good flowers, fruits, or have other desirable traits.
2. To quickly produce mature millions of plants.
3. To acquire knowledge on the production of multiples of plants in the absence of seeds or necessary pollinators to produce seeds.

4. To improve the state of health of the planted material and to increase the number of desirable germplasms available to the plant breeder.
5. To develop Skill on plantlet generation by using tissue culture techniques

COURSE OUTCOMES

1. Understand the Concepts of plant tissue culture
2. Acquire the knowledge on plant cells, tissues or organs under sterile conditions on anutrient culture medium of known composition.
3. Develop the skill on as micropropagation.
4. Improve the state of health of the planted material and to increase the number of desirable germplasms available to the plant breeder.
5. Develop Skill on planet generation by using tissue culture techniques

CYTOGENETICS, PLANT BREEDING AND EVOLUTION

LEARNING OBJECTIVES

1. To understand the structure of prokaryotic and eukaryotic cell and Cell organelles.
2. To Understand the Principles of Mendelian Genetics.
3. To acquire knowledge about Mutation and Mutagens
4. To understand the Principle and significance of Plant Breeding
5. To understand the Process and theories of Evolution

COURSE OUTCOMES

1. Understand the structure of prokaryotic and eukaryotic cell and Cell organelles.
2. Understand the Principles of Mendelian Genetics
3. Acquire knowledge about Mutation and Mutagens
4. Understand the Principle and significance of Plant Breeding
5. Understand the Process and theories of Evolution

MARINE BOTANY

LEARNING OBJECTIVES

1. To study the Introduction, concepts and Significance of marine Biology
2. To understand Marine environment, Ecosystem and its Biodiversity.
3. To acquire the knowledge about Microalgae, Macro algae, Sea grasses and Mangroves
4. To Understand the economic importance of Microalgae, Macroalgae, Sea grasses and Mangroves
5. To apply the skill on Identifying the sources, impact and control of Marine Pollution.

COURSE OUTCOMES

1. Understand the Introduction, concepts and Significance of marine Biology
2. Understand Marine environment, Ecosystem and its Biodiversity.
3. Acquire the knowledge about Microalgae, Macroalgae, Seagrass and mangroves
4. Understand the economic importance of Microalgae, Macroalgae, Seagrass and Mangroves
5. Apply the skill on Identifying the sources, impact and control of Marine Pollution.

TECHNIQUES IN BOTANY

LEARNING OBJECTIVES

1. To understand working principle, and applications of Microscopy
2. To provide knowledge about Micro and Spectroscopic techniques
3. To understand the working Principle of Spectroscopy
4. To understand the Molecular biology tools and techniques
5. To acquire the knowledge on Tissue culture techniques

COURSE OUTCOMES

1. Understand working principle, and applications of Microscopy
2. Acquire knowledge about Micro and Spectroscopic techniques
3. Understand the working Principle of Spectroscopy
4. Understand the Molecular biology tools and techniques
5. Understand the techniques in Tissue culture

PHARMACOGNOSY

LEARNING OBJECTIVES

1. To acquire the knowledge of Pharmacognosy
2. To understand the diversity, isolation, identification of plant phytochemicals
3. To acquire the knowledge of Therapeutic Uses of Plants and Drugs
4. To understand the application of medicinal Plants
5. To acquire the knowledge of Crude Plant Drugs

COURSE OUTCOMES

1. Acquire the knowledge of Pharmacognosy
2. Understand the diversity, isolation, identification of plant phytochemicals
3. Acquire the knowledge of Therapeutic Uses of Plants and Drugs
4. Understand the application of medicinal Plants
5. Acquire the knowledge of Crude Plant Drugs

HUMAN RIGHTS

LEARNING OBJECTIVES

1. To understand the Human Rights and concern for its protection
2. To acquire the knowledge about the role of UN in protecting and promoting awareness of Human Rights and National legislations enforcement
3. To trace the development of regional instruments drafted aiming at protection of Human Rights and its enforceability.

4. **To understand the Indian perspective of protection of Human Rights vide its Legislations, the Constitution of India Fundamental rights, Duties and Directive Principles of the State Policy**
5. **To aware about Special legislations and the enforcement machineries of Human Rights in India.**

COURSE OUTCOMES

1. **Know the nature of human rights its origin, the theories, the movements in the march of human rights and the facets of future of human rights.**
2. **Understand the international dimension of human rights, the role of UN and the global effort in formulating conventions and declarations.**
3. **Perceive the regional developments of human rights in Europe, Africa and Asia and the enforceable value of human rights in international arena.**
4. **Acquire the knowledge on the human rights perspectives in India, more developed by its constitution and special legislations.**
5. **Know the redressal mechanism made available in case of human rights violation confined to India.**

BACHELOR OF CHEMISTRY

PROGRAMME OUTCOME

- **The course outcomes of Chemistry programme are to gain the knowledge of Chemistry through theory and practical.**
- **It gives deep idea to understand good laboratory practices and safety. It inculcates the students to make aware and handle the sophisticated instruments and equipment.**
- **This Chemistry programme employs critical thinking and the scientific knowledge to design, carry out, record and analyse the results of chemical reactions. It inculcates logical thinking to address a problem and become result oriented with a positive attitude.**
- **On the outset it develops research oriented skills in students. This programme creates an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.**
- **The knowledge gained from this course also allows the students to build up small scale industry for developing endogenous product.**

COURSE OUTCOMES

GENERAL CHEMISTRY – I

LEARNING OBJECTIVES

1. To provide basic idea about regarding atomic structure
2. To impart knowledge about Periodic Properties, Bonding Concepts, Ionic Bond, VSEPR and MO Theories.
3. To acquire in-depth knowledge about Nomenclature of Organic Compounds, Hybridisation, Reaction Intermediates.
4. To inculate interest in Gaseous State, Kinds of velocities, Virial equation of state.
5. Make the students to understand about Liquid state, Liquid crystals, Solid state, X-ray diffraction.

COURSE OUTCOMES

1. Recollect the Chemistry of Quantum Numbers.
2. Discuss various types of bonding through VB & MO theories.
3. Name simple Aliphatic and Aromatic Compounds and Illustrate and apply electron displacement effects and reaction mechanisms.
4. Understand Gaseous state, kinds velocities.
5. Elaborate the basic concepts of solid and liquid states.

GENERAL CHEMISTRY – II

LEARNING OBJECTIVES

1. Lab safety and Nature of chemicals.
2. Types of titrations and Concentration terms.
3. Semi micro analysis and precipitation techniques.
4. Organic analysis
5. Logarithm, drawing graph, rules of differentiation and integration.

COURSE OUTCOMES

1. How to be safe in chemistry laboratory and handle chemicals carefully.
2. Concentration terms, handling burette, pipette etc and various types of titrations.
3. How qualitative methods are useful in finding inorganic radicals.
4. Organic analysis.
5. Taking logarithm, drawing graphs.

VOLUMETRIC ANALYSIS AND INORGANIC PREPARATIONS

LEARNING OBJECTIVES

1. To enhance the knowledge and principles behind volumetric analysis.
2. To impart skills in weighing.
3. To understand the principles of standardizing the solution using the analytical technique known as titration.
4. To know about the uses of various indicators.
5. To invoke the basic knowledge of various primary standard salts and their significance.

COURSE OUTCOMES

1. Analyse the given unknown solution and assess its normality.
2. Evaluate the amount of substance from normality.
3. Able to plan experimental projects and execute them.
4. Orient towards the important concepts of redox and precipitation titrations.
5. Understand the laboratory techniques behind inorganic preparations.

GENERAL CHEMISTRY-III

LEARNING OBJECTIVES

1. To obtain a comprehensive overview on s and p block elements.
2. To understand the properties and reactions of alkanes, alkenes and alkynes.

3. To impart knowledge regarding the basics of dienes and cycloalkanes.
4. To understand the various terminologies and reactions related to Quantum Chemistry and Thermodynamics.
5. To understand the laws and reactions related to Thermochemistry.

COURSE OUTCOMES

1. Compare basic properties of elements and their Compounds of s & p block elements.
2. Explain the reaction mechanisms of alkanes, alkenes and alkynes and predict the products.
3. Classify dienes and analyse the stability of alkanes, alkenes and cycloalkanes.
4. Recollect the basic concepts of Quantum Theory and Thermodynamics.
5. Calculate thermodynamic parameters using thermochemical equations and data.

HEALTH CHEMISTRY

LEARNING OBJECTIVES

1. To recognize the causes of common diseases, their control and treatment
2. To understand the first aid for accidents
3. To study the organic pharmaceutical aids
4. To know about organic diagnostic agents
5. To have an idea about diabetes and cancer.

COURSE OUTCOMES

1. Describe the causes, control and treatment of common diseases.
2. Understand the concepts of first aid for accidents.
3. Classify different organic pharmaceutical aids.
4. Explain organic diagnostic agents.
5. Describe diabetes, cancer and their control and treatment.

PHARMACEUTICAL CHEMISTRY

LEARNING OBJECTIVES

1. To know the basics of pharmaceutical chemistry
2. To realize the role of Indian medicinal plants and blood
3. To have an idea about alkaloids and sulphonamides
4. To distinguish about antibiotics and analgesics
5. To learn anaesthetics, antiseptics and disinfectants

COURSE OUTCOMES

1. Realize the role of pharmaceutical chemistry
2. Understand the role of Indian medicinal plants and blood
3. Describe alkaloids and sulphonamides
4. Explain antibiotics and analgesics
5. Describe anaesthetics, antiseptics and disinfectants

TEXTILE CHEMISTRY

LEARNING OBJECTIVES

1. To know the basics of fibres.
2. To realize the properties of fibres.
3. To learn processing of fibres.
4. To understand dye chemistry.
5. To learn dyeing process.

COURSE OUTCOMES

1. Understand the basics of fibers
2. Realize the properties of fibers
3. Describe processing of Fibers
4. Explain dye chemistry
5. Describe dyeing process

MASTER OF CHEMISTRY

PROGRAMME OUTCOME

- **The course outcomes of Chemistry programme are to gain the knowledge of Chemistry through theory and practical.**
- **It gives deep idea to understand good laboratory practices and safety. It inculcates the students to make aware and handle the sophisticated instruments and equipment.**
- **This Chemistry programme employs critical thinking and the scientific knowledge to design, carry out, record and analyse the results of chemical reactions. It inculcates logical thinking to address a problem and become result oriented with a positive attitude.**
- **On the outset it develops research oriented skills in students. This programme creates an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.**
- **The knowledge gained from this course also allows the students to build up small scale industry for developing endogenous product.**

COURSE OUTCOMES

ORGANIC CHEMISTRY –I

LEARNING OBJECTIVES

1. To learn the basic aspects of stereochemistry
2. To gain knowledge about the reactive intermediate and reactions involving free radicals
3. To study the mechanisms of Aliphatic Nucleophilic and electrophilic substitutions
4. To learn the concepts of Aromaticity, Anti aromaticity and Homo aromaticity of Benzenoid and Non- benzenoid compounds
5. To accrue skill of predicting the mechanisms of Aromatic substitution reactions.

COURSE OUTCOMES

1. Describe the concept of Stereochemistry
2. Compare the stabilities of various reactive intermediates.
3. Analyse and propose reasonable mechanism for Substitutions in Aliphatic molecules
4. Compare the stabilities of molecules based on aromaticity
5. Analyze the mechanisms of Aromatic Substitution reactions.

INORGANIC CHEMISTRY – I

LEARNING OBJECTIVES

1. To know about the structure and bonding of inorganic compounds and the inorganic polymers.
2. To study the concept of coordination chemistry and stability of the complexes
3. To gain knowledge of metal-ligand orbital overlap, molecular orbital theory and energy level diagrams etc.,
4. To learn about the mechanism of substitution reactions of octahedral complexes.
5. To acquire skill of using substitution reactions of square planar complexes and electron transfer reactions for complexes.

COURSE OUTCOMES

1. Gain knowledge about the structure and bonding of Inorganic compounds and explain Isopolyacids and hetropolyacids of Vanadium, Chromium, Molybdenum and Tungsten.
2. Illustrates the chemistry of metal clusters and discuss polyhedral boranes, carboranes and metallocarboranes
3. Explain the stability constant of co-ordination complexes and stereo chemistry for co-ordination complexes
4. Apply the molecular orbital theory and energy level diagrams, concept of weak and strong field ligands, Jahn-Teller distortion etc.,
5. Illustrate the Substitution reactions of square planar complexes and electron transfer reactions

PHYSICAL CHEMISTRY –I

LEARNING OBJECTIVES

1. To understand the theories of chemical kinetics in reaction mechanisms.
2. To apply the kinetic concepts in homogenous and heterogeneous catalyzed reactions.
3. To study about Surface Chemistry, surface tension and catalysis.
4. To identify the symmetry of elements, symmetry operations and apply the fundamentals of group theory in electronic spectroscopy
5. To appreciate the principals involved in the Rotational and vibrational spectroscopic techniques.

COURSE OUTCOMES

1. derive the rate equation from mechanistic data and calculation
2. relate microscopic properties of molecules with macroscopic thermodynamic observables
3. Gain knowledge about the Surface Chemistry and its mechanisms.
4. Apply group theory for molecules like water, ethylene, butadiene etc...
5. imbibe basic aspects of spectroscopy and apply to poly atomic molecule

ORGANIC CHEMISTRY PRACTICAL- I

LEARNING OBJECTIVES

1. To learn to synthesise Organic molecules with the available substrates.

COURSE OUTCOMES

1. Acquire basic laboratory skills required to carry out organic reactions.
2. Independently perform two step organic preparations.
3. Analyse the mechanisms of reactions.
4. Gain the expertise to solve specific research problems.
5. Synthesise molecules with green chemistry procedures.

PHYSICAL CHEMISTRY PRACTICAL- I

LEARNING OBJECTIVES

1. To impart skills in evaluation of physical parameters by various methods.
2. To adopt different methods for validation of results.

COURSE OUTCOMES

1. Interpret the experimental data of various physical parameters
2. Analyse the physical parameters quantitatively and qualitatively
3. Identify the suitable methodology to measure and characterise the physical parameters.

POLYMER CHEMISTRY

LEARNING OBJECTIVES

1. To provide a thorough understanding of the basic concept of polymers
2. To gain knowledge about the different polymerization mechanisms
3. To learn the molecular weight determination and characterization of polymers.
4. To exploit the polymer processing techniques for various applications.
5. To study the importance of advanced polymers

COURSE OUTCOMES

1. Understand the basic concept of polymers and the chemistry of organic and inorganic polymers
2. Understand the kinetics and mechanism of various polymerization techniques.
3. Choose an appropriate analytical method to characterize polymers.
4. Select an appropriate moulding technique to process a particular polymer.
5. Realize the importance of advanced polymers.

MATERIALS CHEMISTRY

LEARNING OBJECTIVES

1. To understand the basics of crystal structures and their defects.
2. To learn various crystal growth and thin-film techniques.
3. To study the diffusion and electronic properties of nanomaterial
4. To gain knowledge about magnetic properties and dielectric properties of Nanomaterial.
5. To study Nano composites and their functional applications

COURSE OUTCOMES

1. Understand the basics of crystal structures and their defects.
2. Understand the different types of crystal growth and thin film technique.
3. Describe the diffusion properties, electronic and optical properties of nanomaterial.
4. Describe various physical properties of solid/Nano- Materials.
5. identify various types of Nano composites

PHARMACEUTICAL CHEMISTRY

LEARNING OBJECTIVES

1. Learn about the drugs and drug targets
2. Observe the mechanism of action of drugs and apply it for the drug design and discovery
3. Understand the pharmacokinetic and pharmacodynamic parameters in the drug development process.

4. Gain knowledge about antineoplastic agents
5. Acquire the skill of using cardiovascular drugs for further studies.

COURSE OUTCOMES

1. Identify and extend the applications of drugs and drug target.
2. Explain the mechanism of action drug and analyse theories of drug activity.
3. Interpret pharmacokinetic parameters and appraise the significance of drug metabolism in medicinal chemistry.
4. Classify the antineoplastic agents and integrate the synthesis of drugs to cancer therapy
5. Classify and predict the mechanism of action of cardiovascular drugs.

ORGANIC CHEMISTRY – II

LEARNING OBJECTIVES

1. To learn about the conformations and reactivity of the substituted six membered ring systems
2. To understand the mechanisms of addition and elimination reactions.
3. To learn the name reactions with their mechanisms
4. To learn the synthetic utilities of various oxidation and reduction reactions.
5. To acquire knowledge on the various concepts of reaction kinetics and the HSAB principle.

COURSE OUTCOMES

1. Compare the stability and reactivity of different conformers of Cyclohexane derivatives
2. Solve problems based on additions to Carbon – Carbon and Carbon – Hetero atom multiple bonds.
3. Propose mechanisms and predict the products with proper stereochemistry for various elimination reactions.
4. Apply HSAB principle to Organic reactions and have sufficient knowledge on reaction kinetics and mechanism.

INORGANIC CHEMISTRY – II

LEARNING OBJECTIVES

1. To make the students knowledgeable in solid state chemistry.
2. To study about stellar energy, nuclear reactions etc., and to equip the students for their future career in nuclear industry.
3. To learn the chemistry of lanthanides and actinides
4. To understand the inorganic photochemistry.
5. To gain knowledge about the bioinorganic complexes.

COURSE OUTCOMES

1. Explain the solid-state structures and structural defects
2. Explain the nuclear models, Categorize the nuclear reactions, radio analytical techniques.
3. Describe chemistry of lanthanides and actinides.
4. Analyse and interpret the photo inorganic chemistry reactions.
5. Describe the chemistry of bioinorganic complexes.

PHYSICAL CHEMISTRY – II

LEARNING OBJECTIVES

1. To know the foundations and the physical and mathematical basis of quantum mechanics and to apply the concepts of quantum mechanics to solve problems in microscopic systems.
2. To understand the quantum mechanical approach to the atomic and molecular electronic structure and to know the limitations of quantum chemistry in the evaluation of macroscopic properties
3. To know the mechanisms of photo chemical reaction
4. To know the construction of phase diagram for one, Two and three component systems
5. To understand the catalysis of reactions.

COURSE OUTCOMES

1. Identify the application of quantum chemistry in MO and VB theories and construct hybridization schemes.
2. Derive the equation for one dimensional and two-dimensional boxes.

3. Identify the photo chemical reactions
4. Construct the phase diagram for the three components system.
5. Illustrate the use of catalysis in reactions.

ORGANIC CHEMISTRY PRACTICAL – II

LEARNING OBJECTIVES

1. To learn the methods of separating the components of an organic mixture
2. To analyse the organic compounds based on the organic analysis.
3. To identify the whether the compound is saturated or unsaturated and aliphatic or aromatic.
4. Confirm the particular functional group by confirmatory test.
5. To prepare the derivate of that particular functional group.

COURSE OUTCOMES

1. Gain expertise in separating the components of an organic mixture.
2. Acquire the necessary practical skills to independently analyse organic compounds.
3. Systematically evaluate organic compounds.
4. Apply the knowledge in analysing new samples.
5. Apply the knowledge in synthesizing new molecules

INORGANIC CHEMISTRY PRACTICAL-I

LEARNING OBJECTIVES

1. To get the skill in the identification of cations including rare earth metals and to develop the skill in the preparation of metal complexes.

COURSE OUTCOMES

1. Acquire the necessary practical skills to independently analyze inorganic compounds
2. Gain expertise in the systematic analysis of inorganic compounds.
3. Apply the knowledge in industries.
4. Gain knowledge on the preparation of complexes

GREEN CHEMISTRY

LEARNING OBJECTIVES

1. Understand the basic principles and importance of green chemistry for industrial applications
2. Acquire knowledge about the microwave and ultra sound assisted synthesis
3. Understand the concept of phase-transfer catalysis
4. Gain knowledge about ionic liquids, green reagents, Crown ethers and their applications

COURSE OUTCOMES

1. Define green chemistry and explain basic principles
2. Discuss and appraise green reagents and microwave assisted green synthesis
3. Analyse the synthetic applications of ultra sound assisted green synthesis and ionic liquids.
4. Apprise the advantages and applications of phase transfer catalysis in organic synthesis.
5. Suggest crown ethers for different reactions in organic synthesis.

SUPRA MOLECULAR CHEMISTRY

LEARNING OBJECTIVES

1. To enable the students to gain knowledge about supramolecular interactions.
2. To enable the students to understand about the binding of Host molecules and synthesis various supramolecules.
3. To enable the students to visualise the bonding interactions, design, synthesis of crystal engineering of supramolecules.
4. To enable the students to learn the mechanism and function of supramolecules as Molecular devices.
5. To enable the students to acquire knowledge about biological mimics and supramolecular Catalysis.

COURSE OUTCOMES

1. Recognize the various supramolecular interactions.
2. Perceive the binding of Host molecules and apply it for the synthesis of various supramolecules.
3. Comprehend the bonding interactions, to design the synthesis of crystal engineering of supramolecules.
4. Appreciate the role of supramolecular chemistry in the design of molecular device.
5. Identify the role biological mimics and the significant applications of supramolecular catalysis in research.

NANO CHEMISTRY

LEARNING OBJECTIVES

1. To understand the scientific background, classification and properties of nanomaterials
2. To gain knowledge about special nonmaterial's and to identify the bonding in nanostructure
3. To acquire knowledge about various methods of synthesis of nanomaterials
4. To learn characterization techniques used for nanosystems
5. To study various industrial applications of nanotechnology

COURSE OUTCOMES

1. Discuss on the scientific background on nanomaterials
2. Know various methods of synthesis of nanomaterials
3. Know the characterization techniques used for nanosystems
4. Understand the properties of nanomaterials in depth Acquire knowledge in various industrial applications of nanotechnology

BACHELOR OF INDUSTRIAL CHEMISTRY

PROGRAMME OUTCOME

- **The course outcomes of Chemistry programme are to gain the knowledge of Chemistry through theory and practical.**
- **It gives deep idea to understand good laboratory practices and safety. It inculcates the students to make aware and handle the sophisticated instruments and equipment.**
- **This Chemistry programme employs critical thinking and the scientific knowledge to design, carry out, record and analyse the results of chemical reactions. It inculcates logical thinking to address a problem and become result oriented with a positive attitude.**
- **On the outset it develops research oriented skills in students. This programme creates an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.**
- **The knowledge gained from this course also allows the students to build up small scale industry for developing endogenous product.**

COURSE OUTCOMES

GENERAL CHEMISTRY – I

LEARNING OBJECTIVES

1. To provide basic idea about regarding atomic structure
2. To impart knowledge about Periodic Properties, Bonding Concepts, Ionic Bond, VSEPR and MO Theories.
3. To acquire in-depth knowledge about Nomenclature of Organic Compounds, Hybridisation, Reaction Intermediates.
4. To inculate interest in Gaseous State, Kinds of velocities, Virial equation of state.
5. Make the students to understand about Liquid state, Liquid crystals, Solid state, X-ray diffraction.

COURSE OUTCOMES

1. Recollect the Chemistry of Quantum Numbers.
2. Discuss various types of bonding through VB & MO theories.
3. Name simple Aliphatic and Aromatic Compounds and Illustrate and apply electron displacement effects and reaction mechanisms.
4. Understand Gaseous state, kinds velocities.
5. Elaborate the basic concepts of solid and liquid states.

GENERAL CHEMISTRY – II

LEARNING OBJECTIVES

1. Lab safety and Nature of chemicals.
2. Types of titrations and Concentration terms.
3. Semi micro analysis and precipitation techniques.
4. Organic analysis
5. Logarithm, drawing graph, rules of differentiation and integration.

COURSE OUTCOMES

1. How to be safe in chemistry laboratory and handle chemicals carefully.
2. Concentration terms, handling burette, pipette etc and various types of titrations.
3. How qualitative methods are useful in finding inorganic radicals.
4. Organic analysis.
5. Taking logarithm, drawing graphs.

VOLUMETRIC ANALYSIS AND INORGANIC PREPARATIONS

LEARNING OBJECTIVES

1. To enhance the knowledge and principles behind volumetric analysis.
2. To impart skills in weighing.
3. To understand the principles of standardizing the solution using the analytical technique known as titration.
4. To know about the uses of various indicators.
5. To invoke the basic knowledge of various primary standard salts and their significance.

COURSE OUTCOMES

1. Analyse the given unknown solution and assess its normality.
2. Evaluate the amount of substance from normality.
3. Able to plan experimental projects and execute them.
4. Orient towards the important concepts of redox and precipitation titrations.
5. Understand the laboratory techniques behind inorganic preparations.

GENERAL CHEMISTRY-III

LEARNING OBJECTIVES

1. To obtain a comprehensive overview on s and p block elements.
2. To understand the properties and reactions of alkanes, alkenes and alkynes.

3. To impart knowledge regarding the basics of dienes and cycloalkanes.
4. To understand the various terminologies and reactions related to Quantum Chemistry and Thermodynamics.
5. To understand the laws and reactions related to Thermochemistry.

COURSE OUTCOMES

1. Compare basic properties of elements and their Compounds of s & p block elements.
2. Explain the reaction mechanisms of alkanes, alkenes and alkynes and predict the products.
3. Classify dienes and analyse the stability of alkanes, alkenes and cycloalkanes.
4. Recollect the basic concepts of Quantum Theory and Thermodynamics.
5. Calculate thermodynamic parameters using thermochemical equations and data.

HEALTH CHEMISTRY

LEARNING OBJECTIVES

1. To recognize the causes of common diseases, their control and treatment
2. To understand the first aid for accidents
3. To study the organic pharmaceutical aids
4. To know about organic diagnostic agents
5. To have an idea about diabetes and cancer.

COURSE OUTCOMES

1. Describe the causes, control and treatment of common diseases.
2. Understand the concepts of first aid for accidents.
3. Classify different organic pharmaceutical aids.
4. Explain organic diagnostic agents.
5. Describe diabetes, cancer and their control and treatment.

PHARMACEUTICAL CHEMISTRY

LEARNING OBJECTIVES

1. To know the basics of pharmaceutical chemistry
2. To realize the role of Indian medicinal plants and blood
3. To have an idea about alkaloids and sulphonamides
4. To distinguish about antibiotics and analgesics
5. To learn anaesthetics, antiseptics and disinfectants

COURSE OUTCOMES

1. Realize the role of pharmaceutical chemistry
2. Understand the role of Indian medicinal plants and blood
3. Describe alkaloids and sulphonamides
4. Explain antibiotics and analgesics
5. Describe anaesthetics, antiseptics and disinfectants

TEXTILE CHEMISTRY

LEARNING OBJECTIVES

1. To know the basics of fibres.
2. To realize the properties of fibres.
3. To learn processing of fibres.
4. To understand dye chemistry.
5. To learn dyeing process.

COURSE OUTCOMES

1. Understand the basics of fibres
2. Realize the properties of fibres
3. Describe processing of fibres
4. Explain dye chemistry
5. Describe dyeing process

BACHELOR OF MATHEMATICS

PROGRAMME OUTCOME

1. Equip the student with skills to analyse problems, formulate an hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.
2. Prepare students for pursuing research or careers in industry in mathematical sciences and allied fields
3. Soft copy of curriculum and learning outcomes of programmes and courses are uploaded on the institutions website for reference
4. Apply the knowledge of mathematics science and principle to solution of complex problems
5. Use innovations –based knowledge and creative methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valued conclusions
6. Communicate effectively on various activities and make effective presentation
7. Understand mathematical ideas from basic logics
8. Identify the application of mathematics in other discipline and society
9. On completion of the program, the students are well equipped to pursue careers in academic, industry and the other areas of mathematics

PROGRAMME SPECIFIC OUTCOME

1. Understanding of the fundamental axioms in mathematics and capability of developing ideas based on them.
2. Inculcate mathematical reasoning.
3. Prepare and motivate students for research studies in mathematics and related fields.
4. Provide knowledge of a wide range of mathematical techniques and application of mathematical methods/tools in other scientific and engineering domains.

5. **Provide advanced knowledge on topics in pure mathematics, empowering the students to pursue higher degrees at reputed academic institutions.**
6. **Nurture problem solving skills, thinking, creativity through assignments, project work.**
7. **Effectively communicating research, through journal publications and conference presentations, to the mathematics community.**
8. **Assist students in preparing (personal guidance, books) for competitive exams e.g. NET, GATE, etc.**
9. **Provide opportunities to research students for communication (and discussion) of advanced mathematical topics to undergraduate and graduate students.**

COURSE OUTCOMES

CLASSICAL ALGEBRA

LEARNING OBJECTIVES

1. **In this course students are exposed to topics like Theory of Equations, Summation of Series, Matrices and Elementary Number Theory.**
2. **The stress is on the development of problem solving skills.**

COURSE OUTCOMES

1. **Apply the fundamental concept of theory of equations and to find solutions.**
2. **Apply Descarte's rule, Horner's method, Newton Raphson methods for finding approximate solutions.**
3. **Apply summation of series using Binomial, Exponential and Logarithmic series for finding approximations.**
4. **Apply the elementary number theory for highest power of prime number.**
5. **Apply the elementary number theory for Fermat's and Wilson's theorem.**

DIFFERENTIAL CALCULUS AND TRIGONOMETRY

LEARNING OBJECTIVES

1. **To inculcate the basics of differentiation and their applications, the notion of curvatures, radius of curvature in Cartesian and polar coordinates, Evaluates & Involutes, students can be trained to understand the basic concepts of Trigonometry.**

COURSE OUTCOMES

1. **To know the basic concepts of Successive approximations and Lebnitz's theorem**
2. **Know the principles of Maxima and Minima for 2 variables.**
3. **Find the radius of curvature for Cartesian and Polar coordinates, Evaluates and Involutes.**
4. **Know the expansions of Trigonometric functions.**
5. **Understand the concepts of Hyperbolic and Inverse Hyperbolic functions, Logarithm of Complex numbers, summation of Trigonometry series, Gregory series.**

INTEGRAL CALCULUS

LEARNING OBJECTIVES

1. **In this paper the student is exposed to the idea of integration and different methods of integration. To acquaint the student with mathematical tools needed in evaluating multiple integrals and their usage. The application of integration to the evaluation of areas and volumes is also introduced.**

COURSE OUTCOMES

1. **Solve problems using the different methods of integration.**
2. **Solve problems in techniques of Reduction formulae and Bernoulli's formula.**
3. **Solve problems in Change of order of integration and Properties of definite integrals.**
4. **Solve problems in double and triple integrals.**
5. **Apply double and triple integrals in finding area and volume.**

ANALYTICAL GEOMETRY 3D

LEARNING OBJECTIVES

1. **This paper aims to understand the fundamental concepts of Analytical Geometry in Three Dimension, such as Distance between points, Projections, Angle between planes, Line of intersection of two planes, Length of perpendicular, Symmetrical form of the equations of a line, Coplanar lines, Shortest distance between two given lines, Centre and radius of Sphere, Equation of a circle on a sphere, The equation of Right circular cone and cylinder, Central quadrics**

COURSE OUTCOMES

1. **Explain fundamental concepts of analytical geometry in 3D, about direction cosines of a line and the plane, equation and plane.**
2. **Know the straight line, symmetric form of equation of a line, equation of a line passing through two given points, the plane and the straight line, intersection of three planes.**
3. **Understand the Length of perpendicular distance, coplanar lines.**
4. **Solve problems on Symmetrical form of the equations of a line, Shortest distance between two given lines, Centre and radius of Sphere**
5. **Find the equation of Sphere, the length of the tangent form of point to sphere, equation of a circle on a sphere, intersection of two spheres, cone, cylinder and central quadrics.**

FOURIER SERIES AND FOURIER TRANSFORM

LEARNING OBJECTIVES

1. **Introduce the Fourier series and its application and the concepts of Half range Sine and Cosine series Dirichlet's conditions, Fourier Integrals, Fourier Sine and Cosine Integral, and different type Fourier transforms.**

COURSE OUTCOMES

1. **Find the Fourier series representation of a function of one variable.**
2. **Find the solution of the wave, diffusion and Laplace equations using the Fourier series.**
3. **Demonstrate the use of Fourier Transform to connect the time domain and frequency domain.**
4. **Understand different types of Fourier Transform and its properties.**
5. **Solve problems on Fourier Transform and inverse Fourier Transform.**

MATRIX THEORY

LEARNING OBJECTIVES

1. **In this course students are trained to develop skills in finding rank, inverse, Eigen values, Eigen vectors and quadratic forms.**

COURSE OUTCOMES

1. **Find the rank and inverse of a matrix.**
2. **To understand the symmetric, skew symmetric, Hermitian, orthogonal and Unitary matrices**
3. **Find Eigen Values and Eigen Vectors.**
4. **Diagonalizable the matrix using similarity transformation.**
5. **Find the nature of Quadratic forms.**

NUMBER THEORY

LEARNING OBJECTIVES

1. **To highlight the niceties and nuances in the world of numbers, the students will be given training on divisibility of numbers and the fundamental theorem of arithmetic, prepare them for coding through congruence's and make them understand the Applications of Fermat's theorem , Wilson's theorem and famous Chinese remainder theorem.**

COURSE OUTCOMES

1. **Know the divisibility of Numbers using Euclid's division Lemma.**
2. **Solve problems on Permutations and Combinations.**
3. **Understand the concepts of Chinese theorem and Multiplicative arithmetic functions.**
4. **Apply the Fermat's and Wilson's theorems for solving problems in Numbers.**
5. **Solve problems on Liner Congruence and Polynomial congruence.**

MASTER OF MATHEMATICS

PROGRAMME OUTCOME

1. **Equip the student with skills to analyse problems, formulate an hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.**
2. **Prepare students for pursuing research or careers in industry in mathematical sciences and allied fields**
3. **Soft copy of curriculum and learning outcomes of programmes and courses are uploaded on the institutions website for reference**
4. **Apply the knowledge of mathematics science and principle to solution of complex problems**
5. **Use innovations –based knowledge and creative methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valued conclusions**
6. **Communicate effectively on various activities and make effective presentation**
7. **Understand mathematical ideas from basic logics**
8. **Identify the application of mathematics in other discipline and society**
9. **On completion of the program, the students are well equipped to pursue careers in academic, industry and the other areas of mathematics**

PROGRAMME SPECIFIC OUTCOME

1. **Understanding of the fundamental axioms in mathematics and capability of developing ideas based on them.**
2. **Inculcate mathematical reasoning.**
3. **Prepare and motivate students for research studies in mathematics and related fields.**

4. **Provide knowledge of a wide range of mathematical techniques and application of mathematical methods/tools in other scientific and engineering domains.**
5. **Provide advanced knowledge on topics in pure mathematics, empowering the students to pursue higher degrees at reputed academic institutions.**
6. **Nurture problem solving skills, thinking, creativity through assignments, project work.**
7. **Effectively communicating research, through journal publications and conference presentations, to the mathematics community.**
8. **Assist students in preparing (personal guidance, books) for competitive exams e.g. NET, GATE, etc.**
9. **Provide opportunities to research students for communication (and discussion) of advanced mathematical topics to undergraduate and graduate students.**

COURSE OUTCOMES

ADVANCED ABSTRACT ALGEBRA

LEARNING OBJECTIVES

1. **To learn the importance of Sylow"s Theorems**
2. **To learn the basic concepts of Direct Products and ideas of polynomials**
3. **To attain depth knowledge about the algebraic structure of extension fields**
4. **To provide the use of Galois theory in discussing the existence of roots of the polynomials**
5. **To learn about finite fields and important theorem related to division rings.**

COURSE OUTCOMES

1. **To find the number of Sylow sub groups.**
2. **To find the number of non-Isomorphic Abelian groups.**
3. **To understand fields and roots of polynomials.**
4. **To find the splitting field, Galois group of the given polynomial.**
5. **To check whether the given polynomial is solvable by radicals or not.**

ADVANCED REAL ANALYSIS

LEARNING OBJECTIVES

1. **To give the students a thorough knowledge of real valued functions and their properties.**
2. **To discuss the concepts of Riemann –stieltjes integral and its properties.**
3. **To develop the concept of analysis in abstract situations.**

COURSE OUTCOMES

1. **Demonstrate an understanding the theory of function of bounded variations, sequence of functions, Riemann-stieltjes integrals.**
2. **To apply the theory in the course to solve a variety of problems at an appropriate Level of difficulty.**
3. **Demonstrate skills in constructing rigorous mathematical analysis.**
4. **The student will gain confidence in proving theorems and solving problems.**
5. **Student will understand the generalized concept of Differential Calculus.**

ORDINARY DIFFERENTIAL EQUATIONS

LEARNING OBJECTIVES

1. To develop strong background on finding solutions to linear differential equations with constant and variable coefficients and also singular points.
2. To study existence and uniqueness of the solutions of first order differential equations.

COURSE OUTCOMES

1. Understand the concept of Wronskian formula;
2. Understand the concept of initial value problems;
3. Understand the concept of Existence and uniqueness theorems;
4. Understand the Bessel Function;
5. Understand the Lipschitz condition.

OPTIMIZATION TECHNIQUES

LEARNING OBJECTIVES

1. To enlighten the students in the field of operations research.
2. To help the students to apply OR techniques in business and management problems.
3. To provide a mathematical programming for finding applications in diverse fields Including engineering, computer science and economics.

COURSE OUTCOMES

1. Ability to apply the theory of optimization methods and algorithms to develop and for solving various types of optimization problems.
2. Ability to go in research by applying optimization techniques in real value problems
3. Analyse decision making under certainty and uncertainty by game theory.
4. Understand unconstrained and constrained optimization problems.
5. Understand Non-Linear programming problems.

FUZZY SUBSETS AND APPLICATIONS

LEARNING OBJECTIVES

1. **Familiarize the students with the fundamentals of fuzzy sets, operations on these sets and concept of membership function. Familiar with fuzzy relations and the properties of these relations .To know the concept of a fuzzy number and how it is defined. Become aware of the use of fuzzy inference systems in the design of intelligent systems**

COURSE OUTCOMES

1. **Understand the concepts of Fuzzy sets and its types – Characteristics – Significance of the paradigm shift.**
2. **Be able to distinguish between the crisp set and fuzzy set concepts through the learned differences between the crisp set characteristic function and the fuzzy set membership function.**
3. **To know Fuzzy intersection – t-norms, fuzzy unions – t-conorms. Combinations of operations – Aggregation operations.**
4. **Apply the concept of a fuzzy number and apply in real world problems.**
5. **Student practice to construct various methods of fuzzy sets using sample data.**

MATHEMATICAL STATISTICS

LEARNING OBJECTIVES

2. **To study random variables and its applications.**
3. **To explore probability distributions.**
4. **To understand moments and their functions.**
5. **To introduce significance tests.**
6. **Concepts of ANOVA**

COURSE OUTCOMES

1. Apply the concepts of random variables in real life situations.
2. Identify the type of statistical situation to which different distributions can be applied.
3. Calculate moments and their functions.
4. Explore knowledge in the various significance tests for statistical data.
5. Analyse statistical data using ANOVA.

WAVELETS

LEARNING OBJECTIVES

1. To introduce the basic notions and techniques of Wavelets Theory.
2. To establish the Concepts to understand and use wavelets from Fourier to wavelet analysis.

COURSE OUTCOMES

1. Understand the terminologies that are used in the wavelets, from Fourier analysis to wavelet analysis.
2. Determine the concepts of the Fourier and Inverse Fourier Transforms.
3. know the Wavelet Transforms and Time Frequency Analysis.
4. Learn the concepts on Cardinal Spline Analysis.
5. Study the Scaling Functions and Wavelets theory.

ADVANCED LINEAR ALGEBRA

LEARNING OBJECTIVES

1. To aim learning the students to solve systems of linear equations using multiple methods, matrix operations including inverses
2. To establish basic properties of algebra of polynomials over a field
3. To apply principles of matrix algebra
4. To investigate determinant of matrices and its properties
5. To understand the canonical forms of matrices and its properties.

COURSE OUTCOMES

1. Systems of linear equations
2. The algebra of linear Equations
3. The algebra of Polynomials
4. Determinant functions
5. Diagonalization, Decompositions.

MEASURE THEORY AND INTEGRATION

LEARNING OBJECTIVES

1. To generalize the concept of integration using measures.
2. To develop the concept of analysis in abstract situations.
3. To discuss convergence in measure and properties of Lp Space.

COURSE OUTCOMES

1. Examples and counter examples
2. Problem solving techniques
3. Understand the fundamental studies in measurable sets, measurable functions and convergence in measure.
4. Student will understand the generalized concept of convergence in measure.
5. Student will understand the measurability in a product space.

PARTIAL DIFFERENTIAL EQUATIONS

LEARNING OBJECTIVES

1. To introduce to the students the various types of partial differential equations.
2. How to solve the partial differential equations.

COURSE OUTCOMES

1. Solve various types of first order PDE.
2. Solve various types of second order PDE.
3. Solve Elliptic differential equation.
4. Solve Parabolic differential equation.
5. Solve Hyperbolic differential equation

CLASSICAL DYNAMICS

LEARNING OBJECTIVES

1. **Classical mechanics afford the student an opportunity to master many of mathematics techniques.**
2. **It is certainly true that classical mechanics today is far from being a closed subject.**
3. **Alternate means exist in the curriculum for acquiring the mathematics needed in other branches**
4. **To give a details knowledge about the mechanical system of particles, applications of Lagrange's equations and Hamilton's equations as well as the theory of Hamilton Jacobi Theory.**

COURSE OUTCOMES

1. **Be able to solve the Lagrange,s equations for simple configurations using various methods**
2. **Be able to understand the concept of Hamilton Jacobi Theory.**
3. **Be able to understand the concept canonical Transformations**
4. **To develop skills in formulating and solving physics problems**
5. **Able to get idea of dynamical systems are of relatively recent origin, the concept of motion in phase- space and its geometrical depiction is simple**

NUMBER THEORY AND CRYPTOGRAPHY

LEARNING OBJECTIVES

1. **The course aim is to introduce the concept divisibility and Euclidean algorithm, quadratics residues and reciprocity, encryption and decryption, primarily test.**

COURSE OUTCOMES

1. **Students able to understand the divisibility and Euclidean algorithm.**
2. **Students able to understand quadratics residues and reciprocity.**
3. **Students able to analyse encryption and decryption.**
4. **Students able to do the primarily test.**

FORMAL LANGUAGES AND AUTOMATA THEORY

LEARNING OBJECTIVES

1. Identify the role of switch as simple nontrivial finite automaton
2. Describe states, deterministic and nondeterministic nature of transition
3. Differentiate various languages and the corresponding Machines which accepts them
4. Ascertain the limitations of automaton

COURSE OUTCOMES

1. Formulate grammar which produces a language
2. Identify an automaton which accepts a given language
3. Formulate automaton from grammar
4. Critically analyse the relationship between grammar, language and automaton
5. Student understand the pushdown Automata and CFL.

DIFFERENTIAL GEOMEMETRY

LEARNING OBJECTIVES

1. To introduce space curves, surfaces, curves on surfaces, and study some of their properties.
2. To study the notion of geodesics and its properties.
3. To understand some type of special surfaces such as developable and minimal surfaces.

COURSE OUTCOMES

1. Understand the concept of a space curve in 3D and compute the curvature and torsion of space curves.
2. Understand the fundamental existence theorem.
3. Find geodesics equation on a surface.
4. Understand surfaces of constant curvature , Dini's and Tissot theorems
5. Determine the second fundamental form, compact surface, Hilbert's lemma.

BACHELOR OF PHYSICS

PROGRAMME OUTCOME

- **Student should have been able to transfer and apply the acquired concept and Principles to study the different branches of Physics.**
- **Understanding the set of Physical laws and describing the motion of the bodies under the influence of the system of forces.**
- **Developing their scientific intuition, ability and techniques to tackle problems either theoretical or experiment in nature.**

PROGRAMME SPECIFIC OUTCOME

- **Profound understanding of the concepts of Classical Mechanics, Quantum Mechanics Electromagnetic theory, Nuclear Physics and Advanced Physics, Explained at the high level.**
- **Deep understanding the set of Physical laws, describing the motion of the celestial bodies under the influence of the system of forces.**
- **Knowing the elementary particles, fundamental particles and God particle in detail.**
- **Acquiring the deep knowledge of recent trend in Nano Science and Nano technology.**
- **Demonstrate the ability to justify and explain their thinking or approach both oral and written in higher level.**

COURSE OUTCOMES

PROPERTIES OF MATTER AND SOUND

LEARNING OBJECTIVES

1. To expound the fundamentals of elastic properties of solids.
2. To understand the surface properties of liquids and the experimental methods.
3. To explain the viscous properties of liquids and gases, Poiseuille's formula.
4. To elaborate the SHM, resonance phenomena, determination of frequency and loudness.
5. To get an idea of the ultrasonic generation method, reverberation, acoustics of buildings and use in oil and gas industry.

COURSE OUTCOMES

1. Theory of Elasticity and bending of beams, Couple per unit twist of a wire, Torsional pendulum ideas.
2. Have knowledge on surface properties of liquids and its determination methods.
3. Understood the viscous behaviour of liquids and gasses.
4. understood the Physics of sound and its applications
5. Learned the method of producing ultrasonic waves and its applications. The concepts of acoustic comfort and the theories used in building acoustics, use of sound in oil industry

HEAT AND THERMODYNAMICS

LEARNING OBJECTIVES

1. To get an idea about the specific heat capacity and its determination.
2. To understand the kinetic theory of gases and gas laws.
3. To get acquainted with transmission of heat and radiation laws.
4. To understand the low temperature Physics and Superconductivity.
5. To learn the thermodynamic system and its laws.

COURSE OUTCOMES

1. After the completion this Course, the student would acquire the following:
2. Get an idea about the specific heat capacity and its determination methods.
3. Understood the kinetic theory of gases and gas laws.
4. Get acquainted with transmission of heat process and radiation laws.
5. Understood the method of generating low temperature and Superconductivity.
6. Learnt the thermodynamic system and its associated laws.

MECHANICS

LEARNING OBJECTIVES

1. To learn the laws of conservation and collision of bodies
2. To understand and calculate the moment of inertia of different bodies
3. To know the laws of gravitation, variation of 'g' and gravitational field
4. To learn the central force motion, centre of mass, variable mass systems
5. To understand the friction, centre of gravity and flow of fluids

COURSE OUTCOMES

1. The laws of conservation and collision of bodies
2. Calculate the moment of inertia of rigid body systems
3. Laws of gravitation, variation of 'g' and gravitational field and potential
4. The central force motion, centre of mass and variable mass systems
5. The friction, centre of gravity and flow of fluids

PRACTICAL - I

LEARNING OBJECTIVES

1. Elastic properties of solids.
2. Physical properties of liquids
3. Thermal properties of matter
4. Optical and electrical properties of materials and semiconductors
5. Frequency of vibration, relative density, and acceleration due to gravity

COURSE OUTCOMES

1. Elastic properties of solids.
2. Physical properties of liquids
3. Thermal properties of matter
4. Optical and electrical properties of materials and semiconductors
5. Frequency of vibration, relative density, and acceleration due to gravity

RENEWABLE ENERGY SOURCES

LEARNING OBJECTIVES

1. To provide an understanding of the present energy crisis and various available energy sources.
2. To understand the harvesting of solar energy.
3. To know the basics of photovoltaic system and its applications.
4. To learn about the biogas and biomass energy.
5. To understand the alternative energy sources and their details.

COURSE OUTCOMES

1. Knowledge of Conventional and non-conventional energy sources.
2. Understand the solar energy and the harvesting methods.
3. Gain knowledge about power generation and solar cells.
4. Acquainted with the conversion of biogas and its application.
5. Familiar with the alternative types of energy and their advantages

FUNDAMENTALS OF PHYSICS

LEARNING OBJECTIVES

1. To know the units, dimensions and measurement of various physical quantities.
2. To acquire knowledge on different states of matter and conversion between them.
3. To know different types of energy.
4. To know about pressure, temperature and their simple measuring devices.
5. To understand principles of mirrors and lenses

COURSE OUTCOMES

1. units and dimensions of various fundamental physical quantities
2. Different states of matter and conversion between them.
3. Types of energy and its conservation.
4. Pressure and temperature and their measurement using simple devices.
5. Principle and use of mirrors, lenses and scattering of light.

DATA COMMUNICATION AND PROGRAMMING IN C

LEARNING OBJECTIVES

1. To learn the different aspects of digital data communication and networks. To understand the art of multiplexing signals and its advantages and applications.
2. To get to know the ideas about broadband, layers, repeaters, bridges and gateway. To get acquainted with the keywords, operators, expressions and functions in C program.
3. To study the input and output, branching, loop, arrays etc., in C program.

COURSE OUTCOMES

1. The different aspects of digital data communication and networks
2. The art of multiplexing signals and its advantages and applications.
3. The ideas about broadband, layers, repeaters, bridges and gateway
4. The keywords, operators, expressions and functions in C program.
5. The input and output, branching, loop, arrays etc., in C program.

MASTER OF PHYSICS

PROGRAMME OUTCOME

- **Student should have been able to transfer and apply the acquired concept and Principles to study the different branches of Physics.**
- **Understanding the set of Physical laws and describing the motion of the bodies under the influence of the system of forces.**
- **Developing their scientific intuition, ability and techniques to tackle problems either theoretical or experiment in nature.**

PROGRAMME SPECIFIC OUTCOME

- **Profound understanding of the concepts of Classical Mechanics, Quantum Mechanics Electromagnetic theory, Nuclear Physics and Advanced Physics, Explained at the high level.**
- **Deep understanding the set of Physical laws, describing the motion of the celestial bodies under the influence of the system of forces.**
- **Knowing the elementary particles, fundamental particles and God particle in detail.**
- **Acquiring the deep knowledge of recent trend in Nano Science and Nano technology.**
- **Demonstrate the ability to justify and explain their thinking or approach both oral and written in higher level.**

COURSE OUTCOMES

CLASSICAL AND RELATIVISTIC MECHANICS

LEARNING OBJECTIVES

1. **To make learning of Classical Mechanics interesting and to teach the Lagrangian and Hamiltonian formalisms and their applications.**
2. **To study the kinematics of the rigid body through Euler's equations**
3. **To study the theory of Hamilton Jacobi theory and central force problem**
4. **To teach the theory of small oscillations and vibrational modes of molecules and to create an understanding of the principles of nonlinear dynamics and classical chaos.**
5. **To understand relativity and its consequences**

COURSE OUTCOMES

1. **Have depth knowledge about Lagrangian and Hamiltonian formulations and solve problems using those formulations.**
2. **Have knowledge about fundamentals of rigid body motion and explain Moment of inertia tensor and Euler's equations of motion and will also be able to solve problems on force free motion of a rigid body and symmetrical top.**
3. **Apply Hamilton's characteristic function to solve problems. Understand Action Angle variables and solve one degree of freedom and Kepler's problem.**
4. **Acquire knowledge about oscillatory motion and stability of oscillatory motion. Understand the linear and nonlinear systems and basics of Chaos.**
5. **Understand the applications relativistic mechanics and its consequences.**

MATHEMATICAL PHYSICS – I

LEARNING OBJECTIVES

1. To introduce the students the concepts of vector analysis and its uses.
2. To make the students to understand matrices and applications.
3. To make the student to study the aspect of tensor analysis.
4. To involve the student to learn special functions.
5. To educate the students in understanding group theory.

COURSE OUTCOMES

1. Solve problems using Vector calculus method.
2. Apply matrices to solve higher level problems in quantum and statistical mechanics.
3. Solve problems using Tensor method.
4. Evaluate problems using Special function
5. Evaluate problems using group theory

ELECTRONICS

LEARNING OBJECTIVES

1. To understand the working of semiconductor devices and diodes.
2. To educate the various types of semiconductor memories.
3. To study the importance and applications of operational amplifier.
4. To know about the basics of IC fabrication and applications of timer IC – 555.
5. To learn basics idea about the nanoelectronics.

COURSE OUTCOMES

1. Understand the principles, working of semiconductor devices and diodes.
2. Study the various classifications and applications of semiconductor memories
3. Study the applications of operational amplifier.
4. Highlight the concept of IC circuits and IC 555 timer.
5. Understand basics idea about the nanoelectronics.

PRACTICAL – 1 GENERAL & ELECTRONICS-I

LEARNING OBJECTIVES

1. To make the students to understand experimental physics
2. To apply the theoretical knowledge for developing new devices
3. To study the aspects related to the application side of the experiments
4. To understand the usage of basic laws and theories to determine various properties of the materials given

COURSE OUTCOMES

1. Apply knowledge of Physics fundamentals and instrumentation to arrive solution for various problems.
2. Understand the usage of basic laws and theories to determine various properties of the materials given.
3. Understand the application side of the experiments
4. Acquire in depth knowledge regarding the basic concepts in electronics.
5. Apply theoretical knowledge to establish electronic experiments.

NUMERICAL METHODS AND PYTHON PROGRAMMING

LEARNING OBJECTIVES

1. To educate the students in understanding Numerical solution of algebraic, transcendental and Simultaneous linear algebraic equations.
2. To make the students to understand Numerical Interpolation.
3. To educate the students in understanding Numerical Differentiation, Integration and Solutions of ordinary differential equations.
4. To involve the student to learn python fundamentals.
5. To involve the student to learn File management and Data Management in python tools.

COURSE OUTCOMES

1. Solve problems using Numerical solution of algebraic, transcendental and Simultaneous linear algebraic equations.
2. Solve problems using Interpolation.
3. Evaluate problems using Numerical Differentiation, Integration and Solutions of ordinary differential equations.
4. Represent Python tool in different formats.
5. Apply Python tool in File and Data management.

SOLAR ENERGY UTILIZATION

LEARNING OBJECTIVES

1. Understand basic characteristics of Solar Energy and Technologies.
2. Learn the design and importance of Solar Energy Collectors for Solar energy utilization.
3. Use the testing methods to analyse various solar energy collectors.
4. Understand different types of energy storage devices and its uses.
5. Learn and use the concepts of Solar thermal and Photovoltaic power generation.

COURSE OUTCOMES

1. Understand the characteristics of solar radiation.
2. Gain knowledge in measuring the availability of solar radiation at a given location
3. Realize the role of solar collectors for effective solar energy utilization
4. Explain with the essentials of Solar thermal power generation
5. Familiarize with Photovoltaic method of Solar energy conversion into power.

LASER PHYSICS AND NON LINEAR OPTICS5

LEARNING OBJECTIVES

1. To understand the basic theory of laser action and the concept of Q- switching
2. To explain illustrate the working of various advanced Lasers available

3. To describe the basic Physics of nonlinear optics and demonstrate different NLO phenomena
4. To understand the Multiphoton process
5. To learn the vitals Fiber Optics.

COURSE OUTCOMES

1. Explain the fundamental theory of laser actions
2. Brief out the various concepts of advanced laser systems
3. Describe the elementary ideas of nonlinear optics
4. Elaborate the utilization of NLO phenomenon in various optical scenarios.
5. Illustrate the outline of application of lasers in Fiber Optics.

QUANTUM MECHANICS

LEARNING OBJECTIVES

1. To introduce the basic postulates of quantum mechanics.
2. To make the student to understand exactly solvable systems.
3. To elucidate the aspects of time – independent and time-dependent perturbation theories.
4. To introduce the concepts of angular momentum and identical particles.
5. To make the students to understand relativistic quantum mechanics.

COURSE OUTCOMES

1. Recognize the concept of quantum mechanical tool
2. Describe the application of Schrodinger's equation to exactly solvable problems
3. Analyse the approximations of quantum mechanical problems.
4. Represent various momentum tools
5. Understand and apply the Relativistic quantum field.

MATHEMATICAL PHYSICS – II

LEARNING OBJECTIVES

1. To make the students the understand partial differential equations in physics problems.
2. To make the student in gaining knowledge of complex variable.
3. To involve the student to learn special functions.
4. To educate the students to develop the understanding of integral transforms.
5. To introduce the probability theory.

COURSE OUTCOMES

1. Apply Partial Differential equation to solve various physics problems.
2. Solve problems using complex variable method.
3. Evaluate problems using Special functions
4. Solve problems using Fourier series and Fourier transforms.
5. Analyse problems using Probability theory.

THERMODYNAMICS AND STATISTICAL MECHANICS

LEARNING OBJECTIVES

1. To provide adequate introduction on the postulates of Thermodynamics
2. To understand the Transport properties and related equilibrium concepts
3. To learn the basics of classical statistical mechanics and to understand some of their applications
4. To learn the basics of quantum statistical mechanics and to understand some of their applications
5. To train to apply quantum mechanical statistics to various applications

COURSE OUTCOMES

1. Have adequate knowledge on the basics of thermodynamics.
2. Understand the kinetic theory and transport properties.
3. Know the Basic concepts of classical statistics and applications
4. Know the Basic concepts of quantum statistics.

PRACTICAL – II : GENERAL & ELECTRONICS-II

LEARNING OBJECTIVES

1. To provide adequate introduction on the postulates of Thermodynamics
2. To understand the Transport properties and related equilibrium concepts
3. To learn the basics of classical and quantum statistical mechanics and to understand some of their applications
4. To study the microscopic and macroscopic properties of matter through the statistical probability laws and distribution of particles

COURSE OUTCOMES

1. Understand the basic laws and theories regarding the various properties of the materials.
2. Handle advanced instruments for the accurate determination of physical parameters.
3. Apply the theory to design the basic electronic circuits
4. Use of these basic circuits to create multi vibrators, converters and flip flops etc.
5. To provide a hands-on learning experience and understand the basic concepts and applications of digital electronics.

NANO SCIENCE AND NANO TECHNOLOGY

LEARNING OBJECTIVES

1. To provide the Knowledge about the basics of Nano science and Technology.
2. To understand the structures, properties, characterization and applications of nanomaterial's.
3. To attain the knowledge about types of synthesis methods and characterization techniques.
4. To apply their acquired skill in research to synthesis and to select appropriate characterization for nanomaterial.
5. To acquire a knowledge about the types of nanomaterial used for various applications.

COURSE OUTCOMES

1. Differentiate the Different dimensions of nanomaterial
2. Apply their acquired knowledge to synthesis and to characterize the nanomaterial
3. Select the appropriate element and to synthesize the nanomaterial with desired property.
4. Identify the suitable characterization methods to characterize the prepared nanomaterial.
5. Realize the application of nanomaterial in various fields

PETRO PHYSICS

LEARNING OBJECTIVES

1. To learn the basics of magnetic properties of minerals
2. To understand knowledge on various fundamentals of geomagnetic elements.
3. To gain in depth knowledge about the classification of rock forming minerals and geophysical methods.
4. To study the importance of seismic waves
5. To study the geochronology and thermo luminescence.

COURSE OUTCOMES

1. Understand the various magnetites and behaviour of the remenance properties.
2. Study the geomagnetic elements of the earth and various magnetometer instruments.
3. Understand the classification and properties of of rock forming minerals
4. Highlight the concept of seismic waves and various dating methods.
5. Study the geochronology and thermo luminescence.

COMMUNICATION ELECTRONICS

LEARNING OBJECTIVES

1. To understand the basics of wave propagations and the concepts of micro wave communication
2. To learn the basic principles of Fiber Optics Communication & networking system.
3. To study the elements of RADAR communication.
4. To update the knowledge on satellite communication and the equipment used.
5. To introduce the preliminary concepts of mobile communication systems.

COURSE OUTCOMES

1. Know the basics of wave propagations and the concepts of micro wave communication
2. Understandthe basic principles of Fibber Optics Communication & Networking system.
3. Describe the elements of RADAR communication.
4. Acquire the knowledge on satellite communication and the equipment's used.
5. Learn and apply the preliminary concepts of mobile communication systems.

BACHELOR OF STATISTICS

PROGRAMME OUTCOME

COURSE OUTCOMES

DESCRIPTIVE STATISTICS

LEARNING OBJECTIVES

1. To emphasis and enhance the basic statistical knowledge of the fresh students.
2. To have knowledge on various statistical measures.

COURSE OUTCOMES

1. Study the basic concepts of statistics and data.
2. Have knowledge on various diagrams and graphs.
3. Calculate various measures of averages and dispersion
4. Study the various measures of skewness and kurtosis.
5. Study the measures of bivariate data

PROBABILITY THEORY

LEARNING OBJECTIVES

1. To study the basic concepts for promoting theoretical as well as applications of statistics.
2. To study the limit theorems and convergence in probability.

COURSE OUTCOMES

1. Study the various concepts of probability
2. Understand a random variables probability functions.
3. Study the bivariate probability functions.
4. Understand the mathematical expectations and related functions.
5. Study the law of large numbers.

STATISTICAL PRACTICAL– I

LEARNING OBJECTIVES

1. **To acquire the knowledge to solve problems related to descriptive Statistics.**
2. **To acquire the knowledge to solve problems related to Probability.**

DISTRIBUTION THEORY I

LEARNING OBJECTIVES

1. **To build probability models for non-mathematical forms of real-life problems into mathematical forms.**
2. **To emphasize relevance statistical tools to make decision on the real life problems.**
3. **To have practical knowledge on fitting of various distributions.**

COURSE OUTCOMES

1. **Understand the binomial Poisson distributions.**
2. **Study the Poisson distributions.**
3. **Study the negative Binomial distributions**
4. **Study the geometric distributions.**
5. **Study the hyper geometric distributions.**

QUANTITATIVE APPTITUDE

LEARNING OBJECTIVES

1. **This course is designed to suit the need of the outgoing students. And**
2. **To acquaint them with frequently asked patterns in quantitative aptitude**
3. **To acquaint them with logical reasoning during various examinations and campus interviews.**

COURSE OUTCOMES

1. **Understand the basic concepts of quantitative ability**
2. **Understand the basic concepts of logical reasoning Skills**
3. **Solve campus placements aptitude papers covering Quantitative Ability, Logical Reasoning Ability.**
4. **Compete in various competitive exams like CAT, CMAT, GATE, GRE, GATE, UPSC, GPSC etc.**

DATA BASE MANAGEMENT SYSTEM

LEARNING OBJECTIVES

1. **To enable the students to understand classifying and grouping and retrieve the mass data.**

COURSE OUTCOMES

1. **Study the introduction of DBMS concepts.**
2. **Understand the concept of Entity relationship model.**
3. **Understand the concept of Relational Data Base Design.**
4. **Study SQL.**
5. **Study PL/SQL.**

BACHELOR OF ZOOLOGY

PROGRAMME OUTCOME

- **Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms**
- **Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment**
- **Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.**
- **Understands the complex evolutionary processes and behaviour of animals**
- **Correlates the physiological processes of animals and relationship of organ systems**
- **Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species**
- **Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.**
- **Understands about various concepts of genetics and its importance in human health**
- **Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties**
- **Apply the knowledge and understanding of Zoology to one's own life and work**
- **Develops empathy and love towards the animals**

PROGRAMME SPECIFIC OUTCOME

- **Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology**
- **Analyse the relationships among animals, plants and microbes**
- **Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology**
- **Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine**
- **Gains knowledge about research methodologies, effective communication and skills of problem solving methods**
- **Contributes the knowledge for Nation building**

COURSE OUTCOMES

INVERTEBRATA - I

LEARNING OBJECTIVES

1. **To obtain broad knowledge about different kinds of animal species of invertebrates.**
2. **To understand the systematic and functional morphology of various groups of invertebrates**
3. **To study their economic importance, affinities and adaptations.**
4. **To understand the role of invertebrates in biological communities, ecological interactions and conservation problems**
5. **To assess the diversity of animals in a phylogenetic conditions.**

COURSE OUTCOMES

1. To understand the principle of taxonomy animals
2. To identify the general characters, classification, phylum of Invertebrates
3. To understand the morphology and their systems of various groups of Invertebrates.
4. To study the economic importance of invertebrates and important parasites
5. To study the affinities and adaptations of Invertebrates

INVERTEBRATA - II

LEARNING OBJECTIVES

1. To obtain broad knowledge about different kinds of animal species of invertebrates.
2. To understand the systematic and functional morphology of various groups of invertebrates
3. To study their economic importance, affinities and adaptations.
4. To understand the role of invertebrates in biological communities, ecological interactions and conservation problems
5. To assess the diversity of animals in a phylogenetic conditions.

COURSE OUTCOMES

1. To understand the principle of taxonomy animals
2. To identify the general characters, classification, phylum of Invertebrates
3. To understand the morphology and their systems of various groups of Invertebrates.
4. To study the economic importance of invertebrates and important parasites
5. To study the affinities and adaptations of Invertebrates

INVERTEBRATA AND CHORDATA

LEARNING OBJECTIVES

1. To understand the taxonomy and relationship and evolution of animals.
2. To understand the systematic and functional morphology of various groups of Chordates
3. To study their economic importance, affinities and adaptations.
4. To understand the role of vertebrates in biological communities, ecological interactions and conservation problems
5. To assess the diversity of animals in a phylogenetic conditions.

COURSE OUTCOMES

1. To Understand the diversity of chordates and their classification.
2. To identify the general characters, classification, phylum of Chordates
3. To understand the morphology and their systems of various groups of Vertebrates.
4. Familiarize with gradual development of habit and habita
5. To study the affinities and adaptations of Invertebrates

CHORDATA

LEARNING OBJECTIVES

1. To understand the taxonomy and relationship and evolution of animals.
2. To understand the systematic and functional morphology of various groups of Chordates
3. To study their economic importance, affinities and adaptations.
4. To understand the role of vertebrates in biological communities, ecological interactions and conservation problems
5. To assess the diversity of animals in a phylogenetic conditions.

COURSE OUTCOMES

1. To understand the diversity of chordates and their classification.
2. To identify the general characters, classification, phylum of Chordates

3. To understand the morphology and their systems of various groups of Vertebrates.
4. Familiarize with gradual development of habit and habitat
5. To study the affinities and adaptations of Invertebrates

BIODIVERSITY CONSERVATION

LEARNING OBJECTIVES

1. To give the student insight of scientific developments in Conservation of Biodiversity.
2. To understand the distribution of species and threats to concerning biodiversity.
3. To study the climate change and its problems in conservation of biodiversity.
4. To study the various conservation measures adopted in India.
5. To make the student get aware with various legislations related to wildlife and conservation.

COURSE OUTCOMES

1. Able to understand the types and values of Biodiversity.
2. Able to understand the distribution and threats.
3. Analyse and interpret the problems in conservation of biodiversity.
4. Explain the various strategies adopted in conservation of various species.
5. Able to follow and interpret various rules and regulations related to biodiversity.

BIODIVERSITY CONSERVATION

LEARNING OBJECTIVES

1. To acquire Knowledge of the types of vectors, host, parasite and their control.
2. To study the types of metamorphosis and disease transmission cycle of Vector.
3. To learn morphology, life cycle, diseases transmission and control measures of Housefly and Sandfly.

4. To learn morphology, life cycle, diseases transmission and control measures of Fleas, Lice and Ticks.
5. To learn morphology, life cycle, diseases transmission and control measures of Cyclopes and freshwater snail and to emphasis the National and International programmes and Agencies in vector control.

COURSE OUTCOMES

1. Acquire basic knowledge on types of vectors, host and parasites & take up integrated vector management activities.
2. Acquire basic knowledge on the general characters of vectors, types of disease transmission.
3. Acquire basic knowledge on the biology, epidemiology and control of these three vectors (Housefly and Sandfly).
4. Acquire basic knowledge on the biology, epidemiology and control of these three vectors (Fleas, Lice and Ticks).
5. Acquire basic knowledge on the biology, life cycle and control methods of Cyclopes and freshwater snail, understand the rationale of a global strategy to control these diseases by National and International Agencies and take up jobs in vector control and public health departments.

AQUACULTURE

LEARNING OBJECTIVES

1. To acquire knowledge about the important of aquaculture.
2. To know the different types of culture and pond management.
3. To obtain knowledge about cultivable species and aquarium keeping.
4. To gather information about poly culture
5. To learn the role of organizations and funding agencies involved in aquaculture.

COURSE OUTCOMES

1. **Students will be able to describe the history and development of aquatic life.**
2. **Students will be able to theoretical and practical aspects of fisheries across different species.**
3. **Students will be able to explain how the management of aquatic ponds and to analyse biological samples of Aquaculture ponds.**
4. **Students can make knowledge of how the difference of cultivable forms evolved in the earth.**
5. **To take up jobs in Aquaculture farms.**

MASTER OF ZOOLOGY

PROGRAMME OUTCOME

- **Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms**
- **Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment**
- **Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.**
- **Understands the complex evolutionary processes and behaviour of animals**
- **Correlates the physiological processes of animals and relationship of organ systems**
- **Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species**
- **Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.**
- **Understands about various concepts of genetics and its importance in human health**
- **Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties**
- **Apply the knowledge and understanding of Zoology to one's own life and work**
- **Develops empathy and love towards the animals**

PROGRAMME SPECIFIC OUTCOME

- **Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology**
- **Analyse the relationships among animals, plants and microbes**
- **Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology**
- **Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine**
- **Gains knowledge about research methodologies, effective communication and skills of problem solving methods**
- **Contributes the knowledge for Nation building**

COURSE OUTCOMES

STRUCTURE AND FUNCTIONS OF INVERTEBRATES AND VERTEBRATES

LEARNING OBJECTIVES

1. **To understand the Structure and Functions of invertebrates and vertebrates**
2. **To understand the organs of respiration and excretion and their functioning in invertebrates.**
3. **To analyses the nervous systems of various groups in invertebrates**
4. **To evaluate the larval forms of invertebrates to acquire knowledge on various organ system of vertebrates**

COURSE OUTCOMES

1. **Understand the morphological features and physiological functions like Respiration, reproduction and nervous system of invertebrates and Vertebrates.**
2. **Understand the various salient features of higher invertebrates and Vertebrates.**
3. **Differentiate the patterns of functioning of various organ systems in invertebrates and vertebrates.**
4. **Know the structural organization and functioning of various organs in invertebrates and vertebrates.**
5. **Understand the Structural functioning of respiratory and nervous system**

DEVELOPMENTAL BIOLOGY

LEARNING OBJECTIVES

1. **To understand the various concepts of development**
2. **To study gametogenesis and process of fertilization**
3. **To learn the processes of embryogenesis, organ formation and differentiation**
4. **To analyse the embryonic induction and teratogenesis**
5. **To critically explore assisted reproductive technologies for human welfare**

COURSE OUTCOMES

1. **Acquire knowledge on reproduction and development**
2. **Understand process of fertilization**
3. **Understand the whole process of embryogenesis**
4. **Acquisition of skills in common methods and practices followed in developmental biology related laboratory activities**
5. **Take up jobs in fertility clinics and research labs**

CELL AND MOLECULAR BIOLOGY

LEARNING OBJECTIVES

1. To understand the molecular basis of cell structure and functions
2. To learn the structure and functions of various organization and cell membrane
3. To learn bioenergetics and biogenesis
4. To learn structure and replication of DNA
5. To learn various molecular techniques

COURSE OUTCOMES

1. Acquire knowledge on cellular structure and functions
2. Understand the process of energetic and genesis in cells
3. Interpret the structural and functional significances of DNA and RNA
4. Take up jobs in molecular biology labs and clinical labs
5. Acquire the knowledge about RNAs and its Transcription

TOXICOLOGY

LEARNING OBJECTIVES

1. To learn the concepts and processes involved in toxicology
2. To understand the various methods to know absorption and distribution of toxicants
3. To study the biotransformation and excretion of toxicants
4. To learn the impacts of toxicants and human beings
5. To learn the application of antidotes and Bio monitoring

COURSE OUTCOMES

1. Carry out toxicological analysis of various environmental samples
2. Make observations and biochemical analysis of biological samples
3. Carry out toxicological testing using live specimen to determine toxicity of toxicants
4. Take up jobs in toxicological research institutions and clinical labs
5. Understand the toxic effect of toxicants and biotransformation

APICULTURE

LEARNING OBJECTIVES

1. To acquire knowledge of honey bees and their social values.
2. To acquire knowledge about the rearing techniques and different types of artificial hives
3. To acquire the clear knowledge about the bee enemies, diseases, and their control measures.
4. To acquire knowledge about the importance of bee products and their marketing.
5. To entrepreneur motivation for practicing apiculture as cottage industry.

COURSE OUTCOMES

1. The students will be able to understand the basics of beekeeping.
2. The students will be able to understand the role and different types of bee hives.
3. The students will be able to understand the bee enemies, diseases, and their control measures.
4. The students will be able to learn the economic importance of honey bee products and their marketing.
5. Developed into an Entrepreneurship

PUBLIC HEALTH AND HYGIENE

LEARNING OBJECTIVES

1. To learn important vector borne diseases of human being
2. To understand diseases caused by protozoans
3. To acquire knowledge in diseases caused by helminthes
4. To learn common air, food and water borne disease

COURSE OUTCOMES

1. Analyse various common vectors and diseases, causing
2. Impart skills the general Public for public health and hygiene
3. Work in clinical labs
4. Take up research on issues related to public health and hygiene
5. Understand the Public health and hygiene and its importance

ANIMAL PHYSIOLOGY

LEARNING OBJECTIVES

1. To learn the significance of food and physiology diagram
2. To understand the significance of excretory and osmoregulation system.
3. To study the functioning of cardiovascular system
4. To study respiratory and nervous systems including various receptors

COURSE OUTCOMES

1. Understand the normal physiological functions and necessity to maintain healthy Life
2. Get an opportunity to understand various factors that could lead to altered physiological functions and thereby health problems
3. Perform various physiological experiments and observations
4. Take up jobs in clinical labs and research institutes
5. Understand the various physiological functions and importance

GENETICS

LEARNING OBJECTIVES

1. To learn the fundamental concepts of genetics
2. To study human health related genetic problems, qualitative and quantitative traits and population genetics
3. To learn the structure of genes and their regulation
4. To acquire skills in chromosomal alterations, gene mutations and cancer.
5. To learn application of genetics concepts in microbial genetics and genetic engineering.

COURSE OUTCOMES

1. Interpret phenotypic expressions based on genotype
2. Understand and interpret genetically linked diseases
3. Perform blood group analysis and test metabolic disorders Working in clinical laboratories and take up researches
4. Understand the chromosomal alterations and significance of gene

BIOCHEMISTRY

LEARNING OBJECTIVES

1. To learn classification and metabolism of carbohydrates
2. To understand the structure and metabolism of protein
3. To learn the structure and functions of lipids
4. To acquire knowledge about various enzymes and hormones and their actions
5. To acquire knowledge about the significance of vitamins

COURSE OUTCOMES

1. Understand various micro and macro molecules and their significance
2. Discriminate various metabolic disorders
3. Take up jobs in clinical labs
4. Analyse biological samples of bio-chemical importance
5. Understand the metabolism of macromolecules

ENTOMOLOGY

LEARNING OBJECTIVES

1. To learn various insects and their classification
2. To learn the morphological, anatomical and physiological systems in insects
3. To learn knowledge in agricultural entomology as well as beneficial insects
4. To learn vector insects and their role in public health
5. To learn knowledge on pest management

COURSE OUTCOMES

1. Identify insects based on morphological features
2. Start entrepreneurial activities in sericulture and apiculture
3. Take up jobs in vector control and public health departments
4. Take up integrated pest management activities
5. Understand the Beneficial Insects and Vector insects

BIOPHYSICS & BIOSTATISTICS

LEARNING OBJECTIVES

1. To make the students, operate various microscopes.
2. To make the students, understand spectroscopic principle and application
3. To make the students, know various bio-molecule separation techniques.
4. To make the students to understand the Data collection and its classification
5. To make the students to understand statistical tools and its application

COURSE OUTCOMES

1. Understand the Various types of Microscopes.
2. Understand the working principles and application of Spectroscopy
3. Understand the principles and application of Electrophoresis and separation Techniques
4. Recognize the SEM, TEM, techniques
5. Understand and apply the data collection and analysis

VERMITECHNOLOGY

LEARNING OBJECTIVES

1. To understand the knowledge of Earthworms and their biological diversity and importance
2. To gain the principals and applications of vermin technology and their application techniques
3. To identify the different methods of Composts and their benefits in agriculture fields
4. To understand the significant of vermin technology and their impacts.
5. To Understand the role of earthworms on the decomposition process

COURSE OUTCOMES

1. **Gained the theoretical as well as practical knowledge in the field of and Vermiculture practices**
2. **Interpret the Modern concepts and their application**
3. **Appreciate the biological – soil elements in the behaviour of various Earthworm Composts and their significance**
4. **Understand the impact of soil reclamations in various case studies**
5. **Understand the effects of earthworms on the number, biomass and activity of microorganisms**

இளங்கலை தமிழ்

பாடநெறி முடிவு

இக்கால இலக்கியங்கள்

கற்றலின் நோக்கங்கள்

1. காலந்தோறும் தமிழிலக்கிய வளர்ச்சியின் அடிப்படையில் தற்கால தமிழ் இலக்கிய வளர்நிலையை அறிதல்.
2. சமகாலத்துக் கவிதை, உரைநடையின் தலையாய பண்புநலன்களை உணர்தல்.
3. நடைமுறை சமுதாயத்தின் பிரச்சனைகளையும் அதன் தீர்வுகளையும் அறிவதற்கும் அது தொடர்பான சிந்தனை மேம்பாட்டிற்கும் வழி ஏற்படுத்துதல்.
4. சமுதாய படிநிலை பகுப்புகளையும் சிக்கல்களையும் அறிதல்.
5. இலக்கிய படைப்பாக்கத்தின் புதிய உத்திகளை உணர்ந்து படைப்பாற்றலை ஊக்குவித்தல்.

பாடத்தின் வெளிப்பாடுகள்

1. கவிதைகள் காலந்தோறும் கட்டமைப்பை மாற்றிக்கொள்ள வேண்டியதன் அவசியத்தையும் அதன் உருவாக்க உத்திகளின் மாறுபாட்டையும் தெரிந்துகொள்ளல்.
2. கதை இலக்கியங்கள் சமுதாய இயங்குதளத்துடன் கொண்டிருக்கும் தொடர்பை விளங்கிக்கொள்ள வைத்தல்.
3. சிறுகதை,புதினம் போன்ற இலக்கியவடிவங்கள் மேலைநாடுகளின் வருகையாக இருப்பினும் இன்றைய இலக்கிய உலகில் மேலைநாடுகளுக்கே சவால் விடுகின்ற நிலையில் வளர்ச்சி பெற்றிருப்பதை ஆய்ந்தறிய வைத்தல்.
4. உரைநடை இலக்கியங்கள் மக்களோடு கொண்டிருக்கும் மிகநெருக்கமான உறவை பாடப்பகுதிகளால் புரியவைத்தல்.
5. இக்கால இலக்கியங்கள் இன்றைய சமுதாயப் பிரச்சனைகளை முன்வைப்பதற்கும் முடிவுகாண்பதற்கும் சிறந்த வழித்தடங்கள் என்பதை உணரவைத்து அதன்வழி படைப்பாக்கத்திறனை ஊக்குவித்தல்.

சிற்றிலக்கியங்கள்

கற்றலின் நோக்கங்கள்

1. காலந்தோறும் தமிழிலக்கிய வளர்ச்சியின் அடிப்படையில் நாயக்கர்கால தமிழ் இலக்கிய வளர்நிலையை அறிதல்.
2. பேரிலக்கியகால நிலைக்கும் சிற்றிலக்கியகால நிலைக்குமான அரசியல் மாற்றங்களை உணர்தல்.
3. பேரரசுகளின் உடைபாடுகளில் முளைத்தெழுந்து சிற்றரசுகள் தமிழ்மொழி வளர்ச்சிக்கு எந்நிலையில் துணைநின்றன என்பதை சான்றுகளின் தெளிவித்தல்.
4. சமுதாய வர்க்க மற்றும் இனப்பகுப்புப் படிநிலை பகுப்புகளையும் சிக்கல்களையும் அறிதல்.
5. இலக்கிய படைப்பாக்கத்தின் புதிய வகைகளையும் உத்திகளை உணர்வித்தல்.

பாடத்தின் வெளிப்பாடுகள்

1. சிற்றிலக்கியங்கள் காலந்தோறும் கருத்தமைப்பை மாற்றிக்கொள்ள வேண்டியதன் அவசியத்தையும் அதன் உருவாக்க நோக்கத்தின் மாறுபாட்டையும் தெரிந்துகொள்ளல்.
2. சிற்றிலக்கியங்கள் சமுதாய பிரதிநிதிகளின் நேர்மை பண்பாட்டை புகழ்வதற்கு உகந்த ஊடகம் என்பதை விளங்க வைத்தல்.
3. பேரிலக்கியங்களின் சிறுசிறு உள்உறுப்புகளில் சிற்றிலக்கியங்கள் வளர்ச்சி பெற்றிருப்பதை ஆய்ந்தறிய வைத்தல்.
4. அறிவுறுத்தும் இலக்கியங்களைவிட இன்புறுத்தும் இலக்கியமான சிற்றிலக்கியங்களில் அழகியல் தன்மை மிகநெருக்கமான உறவை பெற்றிருப்பதைப் பாடப்பகுதிகளால் புரியவைத்தல்.
5. திரைப்படப் பாடல்களின் படைப்பிற்குச் சிற்றிலக்கியங்கள் அடித்தளம் அமைத்துத் தரக்கூடியவை என்பதை உணரவைத்து அதன்வழி படைப்பாக்கத்திறனை ஊக்குவித்தல்.

முதுகலை தமிழ்

பாடநெறி முடிவு

இக்கால இலக்கியம்

கற்றலின் நோக்கங்கள்

1. கவித்துவ மொழியின் ஆளுமைத்தறனை அறிவர்.
2. சமூக அடித்தள மக்கள் வளர்ச்சிப் பதிவுகள் மேன்மைகளை அறிவர்.
3. புடைப்புகள் வழி டளித உறவுகளின் தகவுகளை அறிவர்.
4. குலை வெளிப்பாட்டுத் திறனை அறிவர்.
5. இலக்கியப் பதிவுகளைத் தற்கால மொழி வழி அறிவர்.

பாடத்தின் வெளிப்பாடுகள்

1. முற்கால, இக்காலப் படைப்பு வெளியின் இணைப்பை உணர்ந்து அறிவர்.
2. மக்கள் வாழ்வியல் பதிவுகளை வெளிப்படுத்தும் பாங்கினைத் தெரிந்து தெளிவர்.
3. சமூக நிலைப்பேற்றுக்குக் காரணமான மனித உறவு மேம்பாட்டினை உணர்ந்து பயன்கொள்வர்.
4. சமூகம் சார் பதிவுகளைக் கலை இலக்கியம் பிரிதியாக வெளிப்படுத்தும் பாங்கினை அறிவர்.
5. எழுத்தின் வெளிப்பாட்டு உத்திகளையும் வலிமையையும் உணர்ந்து எழுதிப் பழகுவர்.

தொல்காப்பியமும் மொழியியலும்

கற்றலின் நோக்கங்கள்

1. தமிழ் எழுத்துக்களின் பெயரீடு முறைகளை சொற்களின் கட்டுமானம் முதலியவற்றைப் புரிந்து கொள்வர்.
2. தமிழ் எழுத்துக்களின் பிறப்பு முயற்சிகளையும் கூட்டுச் சொற்கள் உருவாக்கத்தின் அடிப்படைகளையும் அறிந்து கொள்வர்.
3. புணர்ச்சியில் மெய்யெழுத்துக்களும் சொற்களும் தொகையாகவும் உருபாகவும் சொற்கட்டுமானத்தின் அடிப்படையாக அமையும் பொழுது ஏற்படும் மாற்றங்கள் குறித்துத் தெளிவடைவர்.

4. புணர்ச்சியல் மெய்யெழுத்துக்களும் குற்றியலுகர எழுத்துக்களும் ஊடாடும் பொழுது எழுதும் திரிபுகளைத் தெளிவு கொள்வர்.
5. தொல்காப்பியரின் எழுத்தியல் சிந்தனைகளை மேனாட்டு அறிஞர்களின் ஒலியனியல் கோட்பாடுகளின் முன்னோடி என்பதை உணர்வர்.

பாடத்தின் வெளிப்பாடுகள்

1. தமிழ் எழுத்துக்களின் பெயரீடு முறைகளைக் காரண காரியத்துடன் அறிந்து மகிழ்வர்.
2. தமிழ் எழுத்துக்களின் பிறப்பியல் முயற்சிகளின் செயல்பாடுகளை அறிவு அடிப்படையிலும் செயல் முறை நிலையிலும் புரிந்து கொள்ள முடியும்.
3. சொற்களின் சேர்க்கையின் பொழுது ஏற்படும் தோன்றல், திரிதல், கெடுதல் என்னும் முத்திறக்கோட்பாடுகளை உய்த்தறிவர்.
4. சோற்சேர்க்கையில் எழுத்துக்களின் நிலைப்பாட்டால் ஏற்படும் மாற்றங்களைத் தமிழ் மொழிக்கொள்கையின் அடிப்படைகளைக் கற்றறிவர். தமிழர் அறிவு தொன்மையனது உயர்வானது என்பதை எழுத்துப் பிறப்பியல் கோட்பாடுகள் வழி உணர்வர்.

சிற்றிலக்கியம்

கற்றலின் நோக்கங்கள்

1. இலக்கியத் தொடர்ச்சியையும் விரிவையும் அறிவர்.
2. இலக்கியத்திற்கும் சமூக உறவிற்குமான தொடர்பை அறிவர்.
3. வாழ்வியல் விழுமியங்களை அறிவர்.
4. மோழி ஆளுகையை அறிவர்.
5. படைப்பிலக்கியப் பயிற்சி பெறுவர்.

பாடத்தின் வெளிப்பாடுகள்

1. இடையாறு வளர்ந்து வரும் இலக்கிய வகைமை வரலாற்றைத் தெரிந்து தெளிவர்.
2. பிற்காலச் சமூக நிலைபேற்றில் இலக்கியங்களின் பங்களிப்பை உணர்ந்து கொள்வர்.
3. மக்கள் வாழ்க்கையும் இலக்கியங்களின் பாடு பொருளும் இரண்டறக் கலப்பதைப் புரிந்து கொள்வர்.
4. மொழிப் பயன்பாட்டில் சொற்பொருள் மாற்றங்களைத் தெரிந்து கொன்வர்.
5. படைப்பாற்றல் திறனைப் பெறுவர்.

இந்திய இலக்கியம்

கற்றலின் நோக்கங்கள்

1. ஒருமைப்பாட்டு உணர்வைப் பெறுவர்.
2. தொல்மொழி தொடங்கி தற்கால அதிகார மொழி வரையிலான படைப்பாக்க மாற்றங்களை அறிவர்.
3. இலக்கிய பாரம்பரிய மொழிகளின் வெளிப்பாட்டுத் திறன்களை அறிவர்.
4. கருத்துப் புலப்பாட்டுக்கும் மொழி ஆளுகைக்குமான தொடர்பை அறிவர்.
5. வாழ்வியல் விழுமியக் கூறுகளை அறிவர்.

பாடத்தின் வெளிப்பாடுகள்

1. இலக்கியங்களின் வழி ஒருமைப்பாட்டுப் பாலம் உருவாவதைப் புரிந்து கொள்வர்.
2. மொழிகளுக்கிடையேயான படைப்புவெளி கருத்தியல் மாற்றங்களைக் கற்றறிவர்.
3. படைப்பு வெளியில் உயர்ந்து நிற்கும் இலக்கிய ஆளுமைகளைக் கற்றுத்தெளிவர்.
4. கருத்தியல் வளர்ச்சிகளுக்கான சமூகக் காரணிகளை உற்றுநோக்கி அறிவர்.
5. மக்களுக்கும் இலக்கியத்திற்குமான உறவினை அறிவர்.

சமய இலக்கியம்

கற்றலின் நோக்கங்கள்

1. சமயம் இலக்கிய அறிவை அறிதல்.
2. பல்வேறு சமயக் கோட்பாடுகளை அறிதல்.
3. இறை ஒன்றே என்னும் ஒருமைப்பாட்டு உணர்வை அறிதல்.
4. இலக்கிய வகைமைகளை அறிதல்.
5. படைப்பாற்றல் திறன் பெறுதல்.

பாடத்தின் வெளிப்பாடுகள்

1. சமயபொறை நிலவ சமய இலக்கிய அறிவு துணை செய்யும் என உணர்ந்து போற்றுவர்.
2. சமயங்கள் உணர்த்தும் இறைக்கோட்பாட்டு வேறுபாடுகளுக்கிடையே ஒற்றுமையை உணர்ந்து தெளிவர்.
3. இறைவனை அடைய செல்லும் பாதைகள் வெவ்வேறு சென்றடையும் இடம் ஒன்று என்பதை உணர்வர்.