B. Com HONOURS COMPUTER APPLICATIONS

I -SEMESTER

COURSE 1: FUNDAMENTALS OF COMMERCE

Learning Objectives:

1. The objective of this paper is to help students to acquire conceptual knowledge of the Commerce, Economy and Role of Commerce in Economic Development.
2. To acquire Knowledge on Accounting and Taxation.

Learning Outcomes:

1. At the end of the course, the student will able to Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments.
2. Develop the skill of accounting and accounting principles.
3. They acquire knowledge on micro and micro economics and factors determine demand and supply.
4. An idea of Indian Tax system and various taxes levied on in India.
5. They will acquire skills on web design and digital marketing.

COURSE 2: BUSINESS ORGANIZATION

Learning Objectives:

1. The course aims to acquire conceptual knowledge of business, formation various business organizations.
2. To provide the knowledge on deciding plant location, plan layout and business combinations.

Learning outcomes:

1. After completing this course a student will have: Ability to understand the concept of Business Organization along with the basic laws and norms of Business Organization.
2. The ability to understand the terminologies associated with the field of Business Organization along with their relevance and to identify the appropriate types and functioning of Business Organization for solving different problems.
3. The application of Business Organization principles to solve business and industry related problems and to understand the concept of Sole Proprietorship, Partnership and Joint Stock Company etc.

SEMESTER-II

COURSE 3: FINANCIAL ACCOUNTING

Learning Objectives: The course aims to help learners to acquire conceptual knowledge of

financial accounting, to impart skills for recording various kinds of business transactions and to prepare financial statements.

Learning Outcomes:

1. At the end of the course, the student will able to identify transactions and events that need to be recorded in the books of accounts.
2. Equip with the knowledge of accounting process and preparation of final accounts of sole trader.
3. Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
4. Know the difference between Joint Ventures and Consignment.
5. Critically examine the balance sheets of a sole trader for different accounting periods. 6
6. Design new accounting formulas & principles for business organizations.

COURSE 4: OFFICE AUTOMATION TOOLS

Course Objectives:

1. The objective of this paper is to help students to acquire knowledge on the environment of GUI in Ms-Word and its features.
2. To introduce the fundamentals concepts of using Ms-Word and its features to make it more useful and provide hands on use of Word, Excel and PowerPoint.

Learning Outcomes:

1. The students will be able: Understand concept of Word Processor and use its features.
2. To use the advanced features of Ms-Word to make day to day usage easier.
3. To work comfortably with Ms-Excel Environment.
4. To create work sheets and user advanced feature of Excel.
5. To create make presentations and inserting multimedia in them.

SEMESTER-III

COURSE 5: ADVANCED ACCOUNTING

Learning Objectives: The course aims to help learners to acquire conceptual knowledge of Non-Profit Organizations, understand the accounting procedure of single-entry system, hire purchase system and partnership accounts.

Learning Outcomes:

1. At the end of the course, the student will able to; Understand the concept of Non-profit organizations and its accounting process, Comprehend the concept of single-entry system and preparation of statement of affairs, Familiarize with the legal formalities at the time of dissolution of the firm, Prepare financial statements for partnership firm on dissolution of the firm and Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.

COURSE 6: INCOME TAX

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge and previsions of income tax concepts and various heads of incomes.
2. To impart skills for calculating various incomes and online filling of tax returns.

Learning Outcomes: At the end of the course, the student will able to; Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning, Understand the provisions and compute income tax for various sources, Grasp amendments made from time to time in Finance Act, Compute total income and define tax complicacies and structure and Prepare and File IT returns of individual at his own.

COURSE 7: E COMMERCE AND WEB DESIGNING

Course Objectives:

1. The course aims to help learners to acquire conceptual knowledge of fundamental concept of E commerce & Web Designing.
2. Emphasize the importance of various E-commerce & Web Designing. Developing and implementing efficient algorithms.

Learning Outcomes:

1. The student will be able to: Explain how to create an e-commerce website from scratch, using PHP and the Bootstrap framework.
2. Display featured products correctly on a web page, using the bootstrap system.
3. Explain how product detail models are programmed to be dynamic.

COURSE 8: DIGITAL MARKETING

Course Objectives:

1. The course aims to identify the impact of digital space and digital marketing in reaching out to customers.
2. Understand the importance of Search Engines and explain the working of Search Engines.
3. Able to Define email Marketing and have knowledge on how Social Media Marketing is to be used by marketers?

Learning Outcomes:

1. The students will be able to: Use digital media for the creation of products and services and relate Search Engines in the digital marketing ecosystem.
2. Use Search Engine Marketing for advertisements and know the Social Media platforms like Face book, Twitter, YouTube & LinkedIn for Marketing.
3. Outline email Marketing and strategy to craft email marketing campaign.

SEMESTER-IV

COURSE 9: CORPORATE ACCOUNTING

Learning Objectives: This course enables the student to develop awareness about corporate accounting in conformity with the provisions of company act.

Learning Outcomes: At the end of the course, the student will able to; Understand the Accounting treatment of Share Capital and aware of process of book building, Demonstrate the procedure for issue of bonus shares and buyback of shares, Comprehend the important provisions of Companies

Act, 2013 and prepare final accounts of a company with Adjustments, Participate in the preparation of consolidated accounts for a corporate group Understand analysis of complex issues, formulation of well-reasoned arguments and reaching better conclusions and Communicate accounting policy choices with reference to relevant laws and accounting standards.

COURSE 10: COST AND MANAGEMENT ACCOUNTING

Learning Objectives: The aim of this course is to expose the students to the basic concepts and the tools used in cost accounting.

Learning Outcomes: At the end of the course, the student will able to; Understand various costing methods and management techniques, Apply Cost and Management accounting methods for both manufacturing and service industry, prepare cost sheet, quotations, and tenders to organization for different works, analyze cost-volume-profit techniques to determine optimal managerial decisions, Compare and contrast the financial statements of firms and interpret the results and Prepare analysis of various special decisions, using relevant management techniques.

COURSE 11: DATABASE MANAGEMENT SYSTEM WITH ORACLE

Course Objectives:

1. The course aims to help the Students will have the expertise in analyzing real time problems and providing appropriate solutions related to Computer Science & Engineering.
2. The Students will have the knowledge of fundamental principles and innovative technologies to succeed in higher studies and research.
3. They continue to learn and to adapt technology developments combined with deep awareness of ethical responsibilities in profession.

Learning Outcomes:

1. An ability to apply Knowledge of computing and mathematics in Computer Science &Engineering.
2. They will analyze a problem, identify and define the computing requirements appropriate to its solution.
3. An ability to design, implement and evaluate a computer-based system to meet desired needs with appropriate societal considerations.
4. They will have knowledge on to conduct investigations, interpret data and provide conclusions in investigating complex problems related to Computer Science & Engineering.
5. An ability to engage in continuing professional development and life-long learning.

SEMESTER-V

COURSE 12: ADVANCED CORPORATE ACCOUNTING

Learning Objectives:

1. The course aims to help learners to acquire conceptual knowledge of purchase of business and amalgamation of companies.
2. They able to understand the accounting procedure of liquidation and corporate accounting

procedures.

Learning Outcomes:

1. After completing the course, the student shall be able to: Understand Corporate Accounting environment and record transactions related to Purchase of Business, Amalgamation and Reconstruction.
2. Analyze the situations of Purchase of Business and Liquidation and create formulas and calculations relating to Amalgamation, Internal Reconstruction and Holding company accounts.
3. Acquire skills of Accounting Procedure of Advanced Corporate Accounting Environment.

COURSE 12: ADVERTISING AND MEDIA PLANNING

Learning Objectives: The objective of this paper is to help students to acquire knowledge on advertising and media planning and to acquire skills in creating and developing advertisements.

Learning Outcomes:

1. At the successful completion of the course students are able to: Understand the role of advertising in business environment and understand the legal and ethical issues in advertising.
2. Acquire skills in creating and developing advertisements and understand up-to-date advances in the current media industry.
3. Acquire the necessary skills for planning and advertising media campaign.

COURSE 13: STOCK MARKETS

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge on concept of Financial Market and ability to understand the terminologies associated with the field of Financial Market and control along with their relevance.
2. To impart awareness on Primary and Secondary Market, Stock Exchange, SEBI etc.

Learning Outcomes:

1. By the completion of the course, the students will be able to Expose to theory and functions of the Share Market in Financial Sector as job careers and
2. Study the functioning of capital markets and create awareness among the public.
3. Acquire knowledge on operations of Share Market and Research skills and involve in activities of Mutual Funds and stock market firms. Enhance their skills by practicing in preparation of accounting statements

COURSE 13: GOODS AND SERVICES TAX WITH TALLY

Learning Outcomes: After completing the course, the student shall be able to:

1. Understand the concept of Liability and Payment of GST
2. Create a new company in Tally with GST components and establish environment for GST Voucher entry.
3. Comprehend the utilization of input tax credit, and the reverse charge mechanism in GST
4. Acquire Skills of preparation of GST Returns in accordance with GST Law and Tally

5. Acquire skill of online payment of GST through GST Portal.

COURSE 14: BUSINESS ANLYSTICS

Course Objectives:

1. The course aims to help learners to acquire knowledge on Business Analytics and explain why Business Analytics is important. State some typical examples of Business Applications and differentiate between OLAP and OLTP.
2. Explain the concepts of Business Intelligence and understand different types of Analytics Differentiate between Data Mining and Machine Learning Concepts

Learning Outcomes:

1. After Completing this course, the students will be able to Understand business analytics and develop business intelligence.
2. Analyze data using statistical and data mining techniques for business intelligence.
3. Understand case studies for predictive models.
4. Expertise in OLAP Tools. Apply different Analytic Techniques

COURSE 14: CYBER SECURITY

Course Objectives:

1. The aim of this course is to help the learner to understand key terms and concepts in cyber security.
2. The Learner will learn to secure clean and corrupted systems, protect personal data, and secure computer networks.
3. The Learner will be able to examine secure software development practices and gain an understanding of cryptography, how it has evolved, and some key encryption techniques used today.

Learning Outcomes:

1. The students will be able to: Analyze and evaluate the cyber security needs of an organization.
2. Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.
3. Measure the performance and troubleshoot cyber security systems.
4. Implement cyber security solutions and use of cyber security, information assurance, and cyber / computer forensics software/tools.
5. The Learner will develop an understanding of security policies (such as confidentiality, integrity, and availability) and protocols to implement such policies and will gain familiarity with prevalent network and distributed system attacks, defenses against them, and forensics to investigate the aftermath.

COURSE 15: MOBILE APPLICATON DEVELOPMENT USING ANDROID

Course Objectives:

1. The course aims to help learners to acquire conceptual knowledge of understanding

Android SDK.

2. To help students to gain a basic understanding of Android application development and instil working knowledge of the Android Studio development tool

Course Outcomes:

1. The student will be able to: Identify various concepts and features of Android operating system.
2. Configure Android environment and development tools.
3. Develop rich user Interfaces by using layouts and controls.
4. Use User Interface components for android application development.
5. Create Android application using database.
6. Publish Android applications.

COURSE 15: BLOCK CHAIN TECHNOLOGY

Course Objectives:

1. The course aims to help learners to acquire conceptual knowledge of Block Chain Technology.
2. To Understand Security systems in Block Chain Technology.
3. To acquire knowledge to applications of Block Chain Technology.

Learning Outcomes:

1. The students will be able: Identify various types of Software Architecture and understand types of Cryptography.
2. Improve knowledge in understanding underlying technologies in Block Chain Technologies.
3. Understand the storage methods and advantages and have knowledge on the applications of Block Chain.

PRINCIPAL
V. V. R. Govt. Degree College
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B. Com HONOURS GENERAL

I -SEMESTER

COURSE 1: FUNDAMENTALS OF COMMERCE

Learning Objectives:

1. The objective of this paper is to help students to acquire conceptual knowledge of the Commerce, Economy and Role of Commerce in Economic Development.
2. To acquire Knowledge on Accounting and Taxation.

Learning Outcomes:

1. At the end of the course, the student will able to Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments.
2. Develop the skill of accounting and accounting principles.
3. They acquire knowledge on micro and micro economics and factors determine demand and supply.
4. An idea of Indian Tax system and various taxes levied on in India.
5. They will acquire skills on web design and digital marketing.

COURSE 2: BUSINESS ORGANIZATION

Learning Objectives:

1. The course aims to acquire conceptual knowledge of business, formation various business organizations.
2. To provide the knowledge on deciding plant location, plan layout and business combinations.

Learning outcomes:

1. After completing this course a student will have: Ability to understand the concept of Business Organization along with the basic laws and norms of Business Organization.
2. The ability to understand the terminologies associated with the field of Business Organization along with their relevance and to identify the appropriate types and functioning of Business Organization for solving different problems.
3. The application of Business Organization principles to solve business and industry related problems and to understand the concept of Sole Proprietorship, Partnership and Joint Stock Company etc.

SEMESTER-II

COURSE 3: FINANCIAL ACCOUNTING

Learning Objectives: The course aims to help learners to acquire conceptual knowledge of financial accounting, to impart skills for recording various kinds of business transactions and to prepare financial statements.

Learning Outcomes:

1. At the end of the course, the student will able to identify transactions and events that need to be recorded in the books of accounts.
2. Equip with the knowledge of accounting process and preparation of final accounts of sole trader.
3. Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
4. Know the difference between Joint Ventures and Consignment.
5. Critically examine the balance sheets of a sole trader for different accounting periods. 6
6. Design new accounting formulas & principles for business organizations.

COURSE 4: BUSINESS MANAGEMENT

Learning Objectives: The course aims to develop an understanding of principles, functions and challenges of management and contemporary issues in management.

Learning Outcomes:

1. At the end of the course, the student will able to; Understand the concept of Business Management along with the basic laws and norms.
2. Able to understand the terminologies associated with the field of Business Management and control along with their relevance.
3. and to identify the appropriate method and techniques of Business Management for solving different problems.
4. They apply basic Business Management principles to solve business and industry related problems and to understand the concept of Planning, Organizing, Direction, Motivation and Control etc.

SEMESTER-III

COURSE 5: ADVANCED ACCOUNTING

Learning Objectives: The course aims to help learners to acquire conceptual knowledge of Non-Profit Organizations, understand the accounting procedure of single-entry system, hire

purchase system and partnership accounts.

Learning Outcomes:

1. At the end of the course, the student will able to; Understand the concept of Non-profit organizations and its accounting process, Comprehend the concept of single-entry system and preparation of statement of affairs, Familiarize with the legal formalities at the time of dissolution of the firm, Prepare financial statements for partnership firm on dissolution of the firm and Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.

COURSE 6: INCOME TAX

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge and previsions of income tax concepts and various heads of incomes.
2. To impart skills for calculating various incomes and online filling of tax returns.

Learning Outcomes: At the end of the course, the student will able to; Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning, Understand the provisions and compute income tax for various sources, Grasp amendments made from time to time in Finance Act, Compute total income and define tax complicacies and structure and Prepare and File IT returns of individual at his own.

COURSE 7: BUSINESS LAW

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge of business laws and previsions of contract.
2. To impart awareness on various sales goods Act and consumer protection Act.
3. To know the various cyber laws prevailing.

Learning Outcomes: At the end of the course, the student will able to; Understand the legal environment of business and laws of business, Highlight the security aspects in the present cyber-crime scenario, Apply basic legal knowledge to business transactions, Understand the various provisions of Company Law, Engage critical thinking to predict outcomes and recommend appropriate action on issues relating to business associations and legal issues and Integrate concept of business law with foreign trade.

COURSE 8: BANKING THEORY AND PRACTICE

Learning Objectives: This course exposes the students to the working of banking and financial system prevailing in India.

Learning Outcomes:

1. At the end of the course, the student will able to; Understand the basic concepts of banks and functions of commercial banks.
2. Demonstrate an awareness of law and practice in a banking context.
3. Engage in critical analysis of the practice of banking law.
4. Organize information as it relates to the regulation of banking products and services.
5. Critically examine the current scenario of Indian Banking system.
6. Formulate the procedure for better service to the customers from various banking innovations.

SEMESTER-IV

COURSE 9: CORPORATE ACCOUNTING

Learning Objectives: This course enables the student to develop awareness about corporate accounting in conformity with the provisions of company act.

Learning Outcomes: At the end of the course, the student will able to; Understand the Accounting treatment of Share Capital and aware of process of book building, Demonstrate the procedure for issue of bonus shares and buyback of shares, Comprehend the important provisions of Companies Act, 2013 and prepare final accounts of a company with Adjustments, Participate in the preparation of consolidated accounts for a corporate group Understand analysis of complex issues, formulation of well-reasoned arguments and reaching better conclusions and Communicate accounting policy choices with reference to relevant laws and accounting standards.

COURSE 10: COST AND MANAGEMENT ACCOUNTING

Learning Objectives: The aim of this course is to expose the students to the basic concepts and the tools used in cost accounting.

Learning Outcomes: At the end of the course, the student will able to; Understand various costing methods and management techniques, Apply Cost and Management accounting methods for both manufacturing and service industry, prepare cost sheet, quotations, and tenders to organization for different works, analyze cost-volume-profit techniques to determine optimal managerial decisions, Compare and contrast the financial statements of firms and interpret the results and Prepare

analysis of various special decisions, using relevant management techniques.

COURSE 11: AUDITING

Learning Objectives: This course aims at imparting knowledge about the principles and methods of auditing and their application.

Learning Outcomes: At the end of the course, the student will able to; Understanding the meaning and necessity of audit in modern era, Comprehend the role of auditor in avoiding the corporate frauds, Identify the steps involved in performing audit process, Determine the appropriate audit report for a given audit situation, apply auditing practices to different types of business entities and plan an audit by considering concepts of evidence, risk and materiality.

SEMESTER-V

COURSE 12: ADVERTISING AND MEDIA PLANNING

Learning Objectives: The objective of this paper is to help students to acquire knowledge on advertising and media planning and to acquire skills in creating and developing advertisements.

Learning Outcomes:

1. At the successful completion of the course students are able to: Understand the role of advertising in business environment and understand the legal and ethical issues in advertising.
2. Acquire skills in creating and developing advertisements and understand up-to-date advances in the current media industry.
3. Acquire the necessary skills for planning and advertising media campaign.

COURSE 12: STOCK MARKETS

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge on concept of Financial Market and ability to understand the terminologies associated with the field of Financial Market and control along with their relevance.
2. To impart awareness on Primary and Secondary Market, Stock Exchange, SEBI etc.

Learning Outcomes:

1. By the completion of the course, the students will be able to Expose to theory and functions of the Share Market in Financial Sector as job careers and
2. Study the functioning of capital markets and create awareness among the public.

3. Acquire knowledge on operations of Share Market and Research skills and involve in activities of Mutual Funds and stock market firms. Enhance their skills by practicing in preparation of accounting statements.

COURSE 13: CUSTOMER RELATIONSHIP MANAGEMENT

Learning objectives: The course focuses on helping in recognizing the key elements need to be addressed and reflects the need to create an integrated cross-functional focus - one that emphasizes retaining as well as winning customers Course Outcomes.

Learning Outcomes:

1. On successful completion of this course, the students will be able: To be aware of the nuances of customer relationship and to analyze the CRM link with the other aspects of marketing.
2. To impart the basic knowledge of the Role of CRM in increasing the sales of the company and to make the students aware of the different CRM models in service industry.
3. To make the students aware and analyze the different issues in CRM.

COURSE 13: STOCK MARKETS ANALYSIS

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge on functioning of local Capital markets.
2. To impart skills by involving activities of Share Market analysis.

Learning Outcomes:

1. By the completion of the course, the students are able to Expose to theory and functions of the monetary and Financial Sector as job careers and Study the functioning of local Capital markets.
2. Create awareness among the public by giving reporting after analysis and Acquire knowledge on operations of Share Market and Research skills.
3. Enhance their skills by involving activities of Share Market analysis.

COURSE 14: DIGITAL MARKETING

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge on digital marketing and various social media marketing.
2. To impart skills by involving students online and email marketing.

Learning Outcomes:

1. Upon successful completion of the course students will be able to; Analyze online Micro and Macro Environment and Design and create website.
2. Discuss search engine marketing and Create blogs, videos, and share.

COURSE 14: ADVANCED CORPORATE ACCOUNTING

Learning Objectives:

1. The course aims to help learners to acquire conceptual knowledge of purchase of business and amalgamation of companies.
2. They able to understand the accounting procedure of liquidation and corporate accounting procedures.

Learning Outcomes:

1. After completing the course, the student shall be able to: Understand Corporate Accounting environment and record transactions related to Purchase of Business, Amalgamation and Reconstruction.
2. Analyze the situations of Purchase of Business and Liquidation and create formulas and calculations relating to Amalgamation, Internal Reconstruction and Holding company accounts.
3. Acquire skills of Accounting Procedure of Advanced Corporate Accounting Environment.

COURSE 15: SERVICE MARKETING

Learning Objectives:

1. The objective of this paper is to help students to acquire knowledge on service marketing and customer responses in services marketing.
2. To familiarize the students on marketing strategies in various services marketing.

Learning Outcomes:

1. Upon successful completion of the course the student will be able to; Discuss the reasons for growth of service sector and examine the marketing strategies of Banking Services, insurance and education services.
2. Review conflict handling and customer Responses in services marketing.
3. Describe segmentation strategies in service marketing and Suggest measures to improve services quality and their service delivery.

COURSE 15: SOFTWARE SOLUTIONS TO ACCOUNTING

Learning Objectives: The objective of this paper is to help students to acquire knowledge on the major accounting software and to impart skills of Tally and different accounting software for accounting purpose.

Course Learning Outcomes:

1. After completing the course, the student shall be able to: Understand the technical environment of accounting software and highlight the major accounting software in India.
2. Apply basics of accounting software into business firms for accounting transactions.
3. Understand the various versions of Tally and other software and integrate the concept of different accounting software for accounting purpose.
4. Design new approaches for use of accounting software environment.

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MADAKASIRA. (Ananthapur Dist)

BSC HONOURS BOTANY

COURSE OUTCOMES:

On successful completion of this course, the students will be able to:

1. Explain origin of life on the earth.
2. Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.
3. Classify fungi, lichens, algae and bryophytes based on their structure, reproduction and life cycles.
4. Analyse and ascertain the plant disease symptoms due to viruses, bacteria and fungi.
5. Recall and explain the evolutionary trends among amphibians of plant kingdom for their shift to land habitat.
6. Evaluate the ecological and economic value of microbes, thallophytes and bryophyte

On successful completion of this practical course, student shall be

Able to; 1. Demonstrate the techniques of use of lab equipment, preparing slides and identify the material and draw diagrams exactly as it appears.

2. Observe and identify microbes and lower groups of plants on their own.

3. Demonstrate the techniques of inoculation, preparation of media etc.

4. Identify the material in the permanent slides etc

On successful completion of this course, the students will be able to:

1. Classify and compare Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycles.
2. Justify evolutionary trends in tracheophytes to adapt for land habitat.
3. Explain the process of fossilization and compare the characteristics of extinct and extant plants.
4. Critically understand various taxonomical aids for identification of Angiosperms.
5. Analyse the morphology of the most common Angiosperm plants of their Localities and recognize their families.

1. Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their goods and services for human welfare.
2. Locate different phytogeographical regions of the world and India and can analyse their floristic wealth

On successful completion of this course students shall be able to:

1. Demonstrate the techniques of section cutting, preparing slides, identifying of the material and drawing exact figures.

2. Compare and contrast the morphological, anatomical and reproductive features of vascular plants.

3. Identify the local angiosperms of the families prescribed to their genus and species level and prepare herbarium.

4. Exhibit skills of preparing slides, identifying the given twigs in the lab and drawing figures of plant twigs, flowers and floral diagrams as they are.

5. Prepare and preserve specimens of local wild plants using herbarium techniques.

On successful completion of this course, the students will be able to;

1. Understand on the organization of tissues and tissue systems in plants.

2.Illustrate and interpret various aspects of embryology.

3.Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and biotic factors on plant communities.

4.Appraise various qualitative and quantitative parameters to study the population and community ecology.

5.Correlate the importance of biodiversity and consequences due to its loss.

6.Enlist the endemic/endangered flora and fauna from two biodiversity hot spots

In India and assess strategies for their conservation.

On successful completion of this practical course students shall be able to:

1. Get familiarized with techniques of section making, staining and microscopic study of vegetative, anatomical and reproductive structure of plants.

2. Observe externally and under microscope, identify and draw exact diagrams of the material in the lab.

3. Demonstrate application of methods in plant ecology and conservation of biodiversity and qualitative and quantitative aspects related to populations and communities of plants.

On successful completion of this course, the students will be able to;

1.Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants.

2. Evaluate the role of minerals in plant nutrition and their deficiency symptoms.

3. Interpret the role of enzymes in plant metabolism.

4.Critically understand the light reactions and carbon assimilation processes responsible for synthesis of food in plants.

5.Analyze the biochemical reactions in relation to Nitrogen and lipid metabolisms.

6.Evaluate the physiological factors that regulate growth and development in plants.

7. Examine the role of light on flowering and explain physiology of plants under stress conditions.

On successful completion of this practical course, students shall be able to:

1. Conduct lab and field experiments pertaining to Plant Physiology, that is, biophysical and biochemical processes using related glassware, equipment, chemicals and plant material.
2. Estimate the quantities and qualitative expressions using experimental results and Calculations.

On successful completion of this course, the students will be able to:

1.Distinguish prokaryotic and eukaryotic cells and design the model of a cell.

2.Explain the organization of a eukaryotic chromosome and the structure of Genetic material.

3.Demonstrate techniques to observe the cell and its components under A microscope.

4.Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings.

5.Elucidate the role of extra-chromosomal genetic material for inheritance of characters.

6. Evaluate the structure, function and regulation of genetic material.

7.Understand the application of principles and modern techniques in plant breeding.

8. Explain the procedures of selection and hybridization for improvement of crops

After successful completion of this practical course the student shall

be able to:

1. Show the understanding of techniques of demonstrating Mitosis and Meiosis in the laboratory and identify different stages of cell division.
2. Identify and explain with diagram the cellular parts of a cell from a model or picture and prepare models

3. Solve the problems related to crosses and gene interactions.

4. Demonstrate plant breeding techniques such as emasculation and bagging.

Objectives and General Outcomes of Programme and Domain Subject

DOMAIN SUBJECT (BOTANY) OBJECTIVES:

1. To impart knowledge on origin, evolution, structure, reproduction and interrelationships of microbes and early plant groups.
2. To provide knowledge on biology and taxonomy of true land plants within a phylogenetic framework.
3. To teach aspects related to anatomy, embryology and ecology of plants, and importance of Biodiversity.
4. To explain the structural and functional aspects of plants with respect to the cell organelles, chromosomes and genes, and methods of plant breeding.
5. To develop a critical understanding on SPAC, metabolism and growth and development in plants.
6. To enable the students proficient in experimental techniques and method of analysis appropriate for various sub-courses in Botany.

DOMAIN SUBJECT (BOTANY) OUTCOMES:

1. Students will be able to identify, compare and distinguish various groups of microbes and primitive plants based on their characteristics.
2. Students will be able to explain the evolution of tracheophytes and also distribution of plants on globe.

3. Students will be able to discuss on internal structure, embryology and ecological adaptations of plants, and want of conserving Biodiversity.
4. Students will be able to interpret life processes in plants in relation to physiology and metabolism.
5. Students will be able to describe ultra-structure of plant cells, inheritance and Crop improvement methods.
6. Students will independently design and conduct simple experiments based on the knowledge acquired in theory and practicals of the different sub-courses in Botany.

BSC HONOURS CHEMISTRY

I -SEMESTER

COURSE 1: ESSENTIALS AND APPLICATIONS OF MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

1. Apply critical thinking skills to solve complex problems involving complex numbers, trigonometric ratios, vectors, and statistical measures.
2. To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations
3. To Explain the basic principles and concepts underlying a broad range of fundamental areas of chemistry and to Connect their knowledge of chemistry to daily life.
4. Understand the interplay and connections between mathematics, physics, and chemistry in various applications. Recognize how mathematical models and physical and chemical principles can be used to explain and predict phenomena in different contexts.
5. To explore the history and evolution of the Internet and to gain an understanding of network security concepts, including threats, vulnerabilities, and countermeasures.

COURSE 2: ADVANCES IN MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

1. Explore the applications of mathematics in various fields of physics and chemistry, to understand how mathematical concepts are used to model and solve real-world problems.
2. To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations.
3. Understand the different sources of renewable energy and their generation processes and advances in nanomaterials and their properties, with a focus on quantum dots. To study the emerging field of quantum communication and its potential applications. To gain an understanding of the principles of biophysics in studying biological systems. Explore the properties and applications of shape memory materials.
4. Understand the principles and techniques used in computer-aided drug design and drug delivery systems, to understand the fabrication techniques and working principles of Nano sensors. Explore the effects of chemical pollutants on ecosystems and human health.
5. Understand the interplay and connections between mathematics, physics, and chemistry in various advanced applications. Recognize how mathematical models and physical and chemical principles can be used to explain and predict phenomena in different contexts.
6. Understand and convert between different number systems, such as binary, octal, decimal, and hexadecimal. Differentiate between analogue and digital signals and understand their characteristics. Gain knowledge of different types of transmission media, such as wired (e.g., copper cables, fibre optics) and wireless (e.g., radio waves, microwave, satellite)

II -SEMESTER

COURSE CODE 3: GENERAL AND INORGANIC CHEMISTRY

1. Understand the structure of atom and the arrangement of elements in the periodic table.
2. Understand the nature and properties of ionic compounds.
3. Identify the structure of a given inorganic compound.
4. Explain the existence of special types of compounds through weak chemical forces.
5. Define acids and bases and predict the nature of salts.

COURSE CODE 4: INORGANIC CHEMISTRY- I

1. Understand the basic concepts of p-block elements.
2. Explain the concepts of d-block elements
3. Distinguish lanthanides and actinides.
4. Describe the importance of radioactivity.

III -SEMESTER

COURSE CODE 5: FUNDAMENTALS IN ORGANIC CHEMISTRY

1. Understand and explain the differential behaviour of organic compounds based on fundamental concepts learnt.
2. Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.
3. Learn and identify many organic reaction mechanisms.
4. Correlate and describe the stereo-chemical properties of organic compounds and reactions.

COURSE CODE 6: ORGANIC CHEMISTRY

1. Understand the concept of SN1andSN2and SNi mechanisms.
2. Describe the reactivity of alcohols and phenols.
3. Achieve the skills required to propose various mechanisms
4. Apply the concepts for synthesising various oxygen containing organic compounds
5. Interconvert the monosaccharides.

Course Code 7: PHYSICAL CHEMISTRY – I

1. Understand the ideal and non-ideal behaviour of solutions.
2. Determine the molecular mass of non-volatile solutes.
3. Discuss the basic concepts of Photochemistry.
4. Apply the principles of electrical conductivity.
5. Explain the importance of emf and its applications.

COURSE CODE 8: INORGANIC AND PHYSICAL CHEMISTRY

1. Apply IUPAC nomenclature for Coordination compounds
2. Understand the various theories, structure and stereo chemistry of coordination compounds.
3. Explain the reaction mechanism in complexes.

4. Apply the 18-electron rule.
5. Discuss the basic concepts of thermodynamics.

IV – SEMESTER

COURSE CODE 9: PHYSICAL CHEMISTRY -II

1. Explain the difference between solids liquids and gases in terms of intermolecular interactions.
2. Differentiate ideal and real gases.
3. Discuss the basic concepts of two component systems
4. Apply the concepts of adsorption.
5. Understand the basic concepts of crystallography.

COURSE CODE 10: GENERAL AND PHYSICAL CHEMISTRY

1. Correlate and describe the stereochemical properties of organic compounds.
2. Explain the biological significance of various elements present in the human body.
3. Apply the concepts of ionic equilibrium for the qualitative and quantitative analysis.
4. Determine the order of a chemical reaction.
5. Describe the basic concepts of enzyme catalysis.

COURSE CODE 11: NITROGEN CONTAINING ORGANIC COMPOUNDS & SPECTROSCOPY

1. Distinguish primary secondary and tertiary amines and their properties.
2. Describe the preparation and properties of amino acids.
3. Explain the reactivity of nitro hydrocarbons.
4. Discuss heterocyclic compounds with N, O and S.
5. Apply the concepts of UV and IR to ascertain the functional group in an organic compound.

V- SEMESTER

COURSE CODE 12 A: ANALYTICAL METHODS IN CHEMISTRY

1. Identify the importance of solvent extraction and ion exchange method.
2. Acquire knowledge on the basic principles of volumetric analysis and gravimetric analysis.
3. Demonstrate the usage of common laboratory apparatus used in quantitative analysis.
4. Understand the theories of different types of titrations.
5. Gain knowledge on different types of errors and the minimization methods.

COURSE 12 B: ENVIRONMENTAL CHEMISTRY

1. Understand the environment functions and how it is affected by human activities.
2. Acquire chemical knowledge to ensure sustainable use of the world's resources and
3. ecosystems services.
4. Engage in simple and advanced analytical tools used to measure the different types of pollution.
5. Explain the energy crisis and different aspects of sustainability.

6. Analyze key ethical challenges concerning biodiversity and understand the moral principles, goals
7. and virtues important for guiding decisions that affect Earth's plant and animal life.

COURSE 13A: CHROMATOGRAPHY AND INSTRUMENTAL METHODS OF ANALYSIS

1. Students after successful completion of the course will be able to: 2)
2. Identify the importance of chromatography in the separation and identification of compounds in a mixture 3)
3. Acquire a critical knowledge on various chromatographic techniques. 4)
4. Demonstrate skills related to analysis of water using different techniques. 5)
5. Understand the principles of spectrochemistry in the determination of metal ions. 6)
6. Comprehend the applications of atomic spectroscopy.

COURSE 13 B GREEN CHEMISTRY AND NANOTECHNOLOGY

1. Understand the importance of Green chemistry and Green synthesis.
2. Engage in Microwave assisted organic synthesis.
3. Demonstrate skills using the alternative green solvents in synthesis.
4. Demonstrate and explain enzymatic catalysis.
5. Analyse alternative sources of energy and carry out green synthesis.
6. Carry out the chemical method of nanomaterial synthesis.

COURSE 14A: SYNTHETIC ORGANIC CHEMISTRY

1. Identify the importance of reagents used in the synthesis of organic compounds.
2. Acquire knowledge on basic concepts in different types of pericyclic reactions.
3. Understand the importance of retro synthesis inorganic chemistry.
4. Comprehend the applications of different reactions in synthetic organic chemistry.

COURSE 14 B: INDUSTRIAL CHEMISTRY- FERTILISERS AND SURFACE COATINGS

1. Identify the importance of different surface coatings.
2. Acquire a critical knowledge on manufacture of ceramics and cement.
3. Understand various steps in the manufacture of cane sugar.
4. Explain the manufacture of pulp and paper.

COURSE 15 A - ANALYSIS OF ORGANIC COMPOUNDS

1. Identify the importance of mass spectrometry in the structural elucidation of organic compounds.
2. Acquire the knowledge on structural elucidation of organic compounds.
3. Understand various chromatography methods in the separation and identification of organic compounds.
4. Demonstrate the knowledge gained in solvent extraction for the separate the organic compounds.

COURSE 15 B: INDUSTRIAL CHEMISTRY- POLYMERS AND WATER ANALYSIS

1. Understand the basic concepts of polymers
2. Acquire a critical knowledge on the preparation and applications of organic polymers.
3. Explain the sources of air pollution.
4. Demonstrate the analysis of water quality parameters.

5. Identify the importance of industrial waste management.

BSC HONOURS ZOOLOGY

COURSE OUTCOMES

I SEMESTER

COURSE-1, INTRODUCTION TO CLASSICAL BIOLOGY

1. Learn the principles of classification and preservation of biodiversity

2. Understand the plant anatomical, physiological and reproductive processes.

.3. Knowledge on animal classification, physiology, embryonic development and their economic importance

4. Outline the cell components, cell processes like cell division, heredity and molecular processes.

5. Comprehend the chemical principles in shaping and driving the macromolecules and life processes

COURSE-1, INTRODUCTION TO APPLIED BIOLOGY

1. Learn the history, ultrastructure, diversity and importance of microorganisms

2. . Understand the structure and functions of macromolecules.
3. 3. Knowledge on biotechnology principles and its applications in food and medicine.
4. 4. Outline the techniques, tools and their uses in diagnosis and therapy.
5. Demonstrate the bioinformatics and statistical tools in comprehending the complex biological data.

II SEMESTER

COURSE-3

ANIMAL DIVERSITY-1 BIOLOGY OF NON -CHORDATES

By the completion of the course the graduate should able to –

- Describe concept of animal kingdom classification and general characters of Protozoa
- Classify Porifera and Coelenterata with taxonomic keys
- Classify Phylum Platy & Nemathelminthes using examples, parasitic adaptation

• Describe Phylum Annelida & Arthropoda using examples and economic importance of vermicomposting & economic importance of insects.

• Describe Mollusca, Echinodermata & Hemi chordata with suitable examples in relation to the phylogeny

COURSE -4,CELL & MOLECULAR BIOLOGY

The overall course outcome is that the student shall develop deeper understanding of what life is and how it functions at cellular level. This course will provide students with a deep knowledge in Cell and molecular biology by the completion of the course the graduate shall able to –

• Understand the basic unit of the living organisms and to differentiate the organisms by their cell structure.

• Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.

• Explain the cell cycle and bioenergetics of the cell

• Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins

• Understand the gene expression phenomenon and biological importance of biomolecules

III SEMESTER

COURSE-5

ANIMAL DIVERSITY-II BIOLOGY OF CHORDATES

By the completion of the course the graduate should able to –

• Describe general taxonomic rules on animal classification of chordates

• Classify Protochordata to Mammalia with taxonomic keys

• Understand Mammals with specific structural adaptations

• Understand the significance of dentition and evolutionary significance

- Understand the origin and evolutionary relationship of different phyla from Prochordata to Mammalia.

COURSE- 6 -PRINCIPLES OF GENETICS

By the completion of the course the graduate should able to –

- To understand the history of genetics, gain knowledge basic terminology of genetics
- To acquire knowledge on interaction of genes, various types of inheritance patterns existing in animals with reference to non-Mendelian inheritance.
- To acquire knowledge on chromosomal inheritance
- Acquiring in-depth knowledge on various of aspects of genetics involved in sex determination,
- Acquiring in-depth knowledge on human karyotyping, pedigree analysis and chromosomal disorders concepts of proteomics and genomics.

COURSE-7, ANIMAL BIOTECHNOLOGY

This course will provide students with a deep knowledge in animal biotechnology, by the completion of the course the graduate shall able to –

- Get knowledge of the Vectors and Restriction enzymes used in biotechnology
- Describe the gene delivery mechanism and PCR technique
- Acquire basic knowledge on media preparation and cell culture techniques
- Understand the manipulation of reproduction with the application of biotechnology
- Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.

COURSE-8,EVOLUTION AND ZOOGEOGRAPHY

The overall course outcome is that the student shall develop deeper understanding of what life is and how it functions at cellular level. This course will provide students with a deep

knowledge in Evolution and zoo geography, by the completion of the course the graduate shall able to –

- Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals
- Explain the different evidences of evolution
- Understand the theories of evolution
- Explain the various tools for evolution
- Map the distribution of animals according to zoological realms

IV SEMESTER

COURSE-9, EMBRYOLOGY

The overall course outcome is that the student shall develop deeper understanding of concepts of embryology. This course will provide students with a deep knowledge in embryology by the completion of the course the graduate shall able to –

- Understand the historical perspective and concepts of embryology
- Acquire knowledge on gametogenesis, fertilization and cleavage patterns
- Understand the fate of germinal layers and extraembryonic membranes
- Explain the process of regeneration in certain animals
- Examine the process of organogenesis

COURSE-10

ANIMSAL PHYSYLOGY ; LIFE SUSSTANING SYSTEMS

The overall course outcome is that the student shall develop deeper understanding of concepts of Physiology. This course will provide students with a deep knowledge in physiology by the completion of the course the graduate shall able to –

- Understand the physiology of digestion and hormonal control of digestion
- Develop a comprehensive picture of respiratory physiology
- Acquire knowledge on the Renal physiology
- Understand the physiology of Nerve and muscle
- Understand the physiology of heart.

COURES-11, IMMUNOLOGY

The overall course outcome is that the student shall develop deeper understanding of concepts of immunology. This course will provide students with a deep knowledge in immunology by the completion of the course the graduate shall able to –

- Articulate the roles of innate recognition receptors in immune responses
- Compare and contrast humoral versus cell-mediated immune responses
- Distinguish various cell types involved in immune responses and associated functions;
- Distinguish and characterize antibody isotypes, development, and functions
- Understand the role of cytokines in immunity and immune cell activation;
- Understand the significance the Major Histocompatibility Complex in terms of immune response and transplantation.

V SEMESTER

COURSE-12, POULTRY MANAGEMENT-1 POULTRY FARMING

Students at the successful completion of the course will be able to • Evaluate the status of Indian Poultry Industry.

- Explain the Scientific Poultry keeping.
- Compare the diversified Poultry practices.
- Inspect the different breeds of chicken

On successful completion of this practical course, student shall be able to:

- Identify different types of Poultry rearing practices.
- Evaluate the efficacy of different types of poultry practices in maximizing yield.
- Understand the importance of different hybrid breeds in poultry

COURSE.-13,POULTRY MANAGEMENT-11

(POULITY PRODUCTION AND MANEGEMENT

Students at the successful completion of the course will be able to.

- Suggest measure for Health care in Poultry.
- Evaluate the economics of poultry production
- Elaborate the poultry Breeder flock management.
- Differentiate the poultry hatchery practice

COURSE-14,A SUSTAINABLE AQUACUL TURE MANEGEMENT

Students at the successful completion of this course will be able to

- Evaluate the present status of aquaculture at the Global level and National level.
- Classify different types of ponds used in aquaculture.
- Demonstrate induced breeding of carps.
- Acquire critical knowledge on commercial importance of shrimps.
- Identify fin and shell fish diseases.

COURSE-14 A; SUSTAINABLE AQUACULTURE MANAGEMENT

On successful completion of this practical course, student shall be able to:

- Identify the characters of Fresh water cultivable species.
- Estimate physico chemical characteristics of water used for aquaculture.
- Examine the diseases of fin and shell fish.
- Suggest measures to prevent diseases in aquaculture.

COURSE-14 B; LIVE STOCK MANAGEMENT-1 (BIOLOGY OF DAILY ANIMALS)

Students at the successful completion of the course will be able to • Select the suitable breeds of livestock for rearing

- Relate the anatomy of udder with let-down of milk

- Identify and manipulate the reproductive behaviour of cattle
- Inspect economics of dairy farming
- Apprise the various breeding techniques employed in livestock
- Differentiate the merits and demerits of cross breeds in cattle

COURSE-15 A;POTHARVEST TECHNOLOHY OF FISH AND FISHERISE

Students at the successful completion of this course will be able to

- Identify the types of preservation methods employed in aquaculture
- Choose the suitable Processing methods in aquaculture
- Maintain the standard quality control protocols laid down in aqua industry
- Identify the best Seafood quality assurance system

On successful completion of this practical course, student shall be able to:

- Identify the quality of aqua processed products.

- Determine the quality of fishery by products by observation.
- Analyse the protocols of aqua processing methods

. COURSE 15 B; LIVE STICK MANAGEMENT-11 (DAILY PRODUCTION AND MANAGEMENT)

Students at the successful completion of the course will be able to • Identify and suggest the suitable housing system for the dairy farming.

- Understand management practices for the dairy farming.
- Learn the process of milk pasteurization.
- Prepare cream from milk.

On successful completion of this practical course, student shall be able to:

- Design a model dairy farm layout
- Understand procedure of milk pasteurization at milk processing centres .

- Identify various important management practices in dairy farming.

BA HONOURS POLITICAL SCIENCE

SEMESTER I

COURSE– 1

FUNDAMENTALS OF SOCIAL SCIENCES

Learning Objectives: The student will be able to understand the nature, various approaches, organs of the state, social perspectives and application of ICT.

Learning Outcomes: On successful completion of the course the student will be able to :

1. Learn about the nature and importance of social science.
2. Understand the Emergence of Culture and History
3. Know the psychological aspects of social behaviour
4. Comprehend the nature of Polity and Economy
5. Knowledge on application of computer technology

COURSE – II

PERSPECTIVES ON INDIAN SOCIETY

Learning objectives: The student is expected to demonstrate the significance of social sciences through better understanding of various fields of social experience and would be able to apply methods and approaches to social phenomena.

Learning Outcomes: On successful completion of the course the student will be able to :

1. Learn about the significance of human behaviour and social dynamics.
2. Remembers the Indian Heritage and freedom struggle
3. Comprehend the philosophical foundations of Indian Constitution
4. Knowledge on Indian Economy

SEMESTER II

COURSE-3 FUNDAMENTALS OF POLITICAL SCIENCE

Learning Objective: The student will be able to understand the nature, various approaches, knowledge of the state and its origin and evolution of the modern state in Political Science.

Learning Outcomes: On successful completion of the course the students will be able to:

1. Learn nature, importance, and relationship with other social sciences.
2. Understand the traditional and modern approaches.
3. Know the origin and evolution of the state.
4. Comprehend the development of social contract theory.
5. Understand the birth of modern state.

COURSE-4 CONCEPTS & IDEOLOGIES OF POLITICAL SCIENCE

Learning Objectives: The student will be able to learn the concepts like law, liberty, equality, rights, and power, Ideologies like liberalism, individualism, anarchism, and fascism and various Isms like Socialism, Marxism, multiculturalism, and nationalism.

Learning Outcomes: On successful completion of the course the students will be able to:

1. Learn the significance of concepts.
2. Understand the law and liberty.
3. Know equality and power and its constituents.
4. Experience the rights and its theories.

5. Understanding of political ideologies.

SEMESTER III

COURSE-5 POLITICAL INSTITUTIONS

The student will have a vivid picture of various political institutions like legislature, executive, judiciary, forms of government, democratic system, and pressure groups.

Learning Outcomes: On successful completion of the course the students will be able to:

1.Understand the organs of the government.

2.Learn the theory of separation of powers.

3.Comprehend the forms of government.

4.Know the rights and its theories.

5.Acquaint with political ideologies.

COURSE-6 INDIAN CONSTITUTION

The student will understand the intricacies of the Constitution, its evolution, development, and insights of feature of Indian Constitution with due stress on fundamental rights, duties, and directive principles of state policy.

Learning Outcomes: On successful completion of the course the students will be able to:

1. Know the origin and evolution of the Constitution.

2. Understand of Constitutional Development of India.

3. Comprehend the feature of Indian Constitution.

4. Identify the rights and duties.

5. Understanding the notion of theory of basic structure.

COURSE-7 WESTERN POLITICAL THOUGHT: ANCIENT & MEDIEVAL

Learning Objectives: The student gets a holistic understanding of the ancient and medieval times prevailed in Europe and, influence of religion on the State.

Learning Outcomes: On successful completion of the course the students will be able to:

1. Understand the fundamental contours classical, western political philosophy,
2. Understand the concepts of Plato and Aristotle
3. Understand the basic features of medieval political thought and shift from medieval to modem era.
4. Understand the influence of religion and its impact on the State.
5. Critically analyse the evolution of western political thought.

COURSE-8 INDIAN FEDERAL SYSTEM

The student will get awareness on Union – State relations, federal process, electoral system, constitutional development in the local governments with 73rd and 74th Constitutional Amendment Acts.

Learning Outcomes: On successful completion of the course the students will be able to:

1.Know the importance of Centre – State Relations.

2.Learn the Indian federal process.

3.Assess the electoral process in India.

4.Estimate the Panchayat Raj System.

5.Understand 73rd & 74th Constitutional Amendment Acts.

SEMESTER V

9. (6D) ELECTORAL POLITICS AND VOTING BEHAVIOUR

Learning Outcomes:

Students at the successful completion of the course will be able to;

1. Acquaint student with the structure and manner of functioning of Election Commission of India.
2. Understand the political issues in Electoral Politics.
3. Provide an overview on voter turnout, voting behaviour in India.
4. Aware of the role of new media and technology in election campaign.
5. Develop an understanding of the required skills for data collection, research in election management.

10. (7D) LEGISLATIVE PROCEDURES AND PRACTICES

Learning Outcomes:

Students at the successful completion of the course will be able to;

1. Make familiar with legislative procedures and practices.
2. Equip the students with the adequate skills of participation in deliberative processes and democratic decision making.
3. Understand complex policy issues, draft new legislation, analyse ongoing bills, make speeches and floor statements.
4. Provide skills to be part of a legislative support team and expose them to real life legislative work.
5. Enhance understanding of procedures, practices, different committees and motions in the House.

PRINCIPAL
V. T. R. Govt. Degree College
MADAKASIRA, (Ananthapur Dist)

B. Com

Programme Outcomes

1. This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, warehousing etc., well trained professionals to meet the requirements.
2. After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company.
3. Capability of the students to make decisions at personal & professional level will increase after completion of this course.
4. Students can independently start up their own Business.
5. Students can get thorough knowledge of finance and commerce.
6. The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.

Programme Specific Outcomes

1. The students can get the knowledge, skills and attitudes during the end of the B.com degree course.
2. By goodness of the preparation they can turn into a Manager, Accountant, Management Accountant, cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents, Government employments and so on.,
3. Students will prove themselves in different professional exams like C.A., C S, CMA, MPSC, UPSC. As well as other coerces.
4. The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.
5. Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer.
6. Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator. As well as other financial supporting services.
7. Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.

8. Students will be able to do their higher education and can make research in the field of finance.

Course Outcomes

Course1A: Fundamentals of Accounting

- Identify transactions and events that need to be recorded in the books of accounts.
- Equip with the knowledge of accounting process and preparation of final accounts of sole trader.
- Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
- Analyse the difference between cash book and pass book in terms of balance and make reconciliation.
- Critically examine the balance sheets of a sole trader for different accounting periods.
- Design new accounting formulas & principles for business organisations.

Course 1B: Business Organization and Management

- Understand different forms of business organizations.
- Comprehend the nature of Joint Stock Company and formalities to promote a Company.
- Describe the Social Responsibility of Business towards the society.
- Critically examine the various organizations of the business firms and judge the best among them.
- Design and plan to register a business firm. Prepare different documents to register a company at his own.
- Articulate new models of business organizations.

Course 1C: Business Environment

Understand the concept of business environment.

Define Internal and External elements affecting business environment.

- Explain the economic trends and its effect on Government policies.
- Critically examine the recent developments in economic and business policies of the Government.

- Evaluate and judge the best business policies in Indian business environment.
- Develop the new ideas for creating good business environment.

Course 2A: Financial Accounting

- Understand the concept of consignment and learn the accounting treatment of the various aspects of consignment.
- Analyze the accounting process and preparation of accounts in consignment and joint venture.
- Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under Joint Venture.
- Determine the useful life and value of the depreciable assets and maintenance of Reserves in business entities.
- Design an accounting system for different models of businesses at his own using the principles of existing accounting system.

Course 2B: Business Economics

- Describe the nature of economics in dealing with the issues of scarcity of resources.
- Analyse supply and demand analysis and its impact on consumer behaviour.
- Evaluate the factors, such as production and costs affecting firm's behaviour.
- Recognize market failure and the role of government in dealing with those failures.
- Use economic analysis to evaluate controversial issues and policies.
- Apply economic models for managerial problems, identify their relationships, and formulate the decision-making tools to be applied for business.

Course 2C: Banking Theory and Practice

- Understand the basic concepts of banks and functions of commercial banks.
- Demonstrate an awareness of law and practice in a banking context.
- Engage in critical analysis of the practice of banking law.
- Organize information as it relates to the regulation of banking products and services.
- Critically examine the current scenario of Indian Banking system.
- Formulate the procedure for better service to the customers from various banking innovations.

Course 3A: Advanced Accounting

- Understand the concept of Non-profit organisations and its accounting process

- Comprehend the concept of single-entry system and preparation of statement of affairs.
- Familiarize with the legal formalities at the time of dissolution of the firm
- Prepare financial statements for partnership firm on dissolution of the firm.
- Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.

Course 3B: Business Statistics

- Understand the importance of Statistics in real life.
- Formulate complete, concise, and correct mathematical proofs.
- Frame problems using multiple mathematical and statistical tools, measuring relationships by using standard techniques.
- Build and assess data-based models.
- Learn and apply the statistical tools in day life.
- Create quantitative models to solve real world problems in appropriate contexts.

Course 3C: Marketing

- Develop an idea about marketing and marketing environment.
- Understand the consumer behaviour and market segmentation process.
- Comprehend the product life cycle and product line decisions.
- Know the process of packaging and labelling to attract the customers.
- Formulate new marketing strategies for a specific new product.
- Develop new product line and sales promotion techniques for a given product.
- Design and develop new advertisements to given products.

Course 4A: Corporate Accounting

- Understand the Accounting treatment of Share Capital and aware of process of book building.
- Demonstrate the procedure for issue of bonus shares and buyback of shares.
- Comprehend the important provisions of Companies Act, 2013 and prepare final accounts of a company with Adjustments.
- Participate in the preparation of consolidated accounts for a corporate group.
- Understand analysis of complex issues, formulation of well-reasoned arguments and reaching better conclusions.
- Communicate accounting policy choices with reference to relevant laws and

accounting standards.

Course 4B: Cost and Management Accounting

- Understand various costing methods and management techniques.
- Apply Cost and Management accounting methods for both manufacturing and service industry.
- Prepare cost sheet, quotations, and tenders to organization for different works.
- Analyse cost-volume-profit techniques to determine optimal managerial decisions.
- Compare and contrast the financial statements of firms and interpret the results.
- Prepare analysis of various special decisions, using relevant management techniques.

Course 4C: Income Tax

- Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning.
- Understand the provisions and compute income tax for various sources.
- Grasp amendments made from time to time in Finance Act.
- Compute total income and define tax complicacies and structure.
- Prepare and File IT returns of individual at his own.

Course 4D: Business Law

- Understand the legal environment of business and laws of business.
- Highlight the security aspects in the present cyber-crime scenario.
- Apply basic legal knowledge to business transactions.
- Understand the various provisions of Company Law.
- Engage critical thinking to predict outcomes and recommend appropriate action on issues relating to business associations and legal issues.
- Integrate concept of business law with foreign trade.

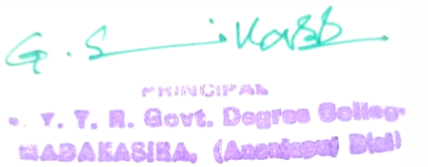
Course 4E: Auditing

- Understanding the meaning and necessity of audit in modern era.
- Comprehend the role of auditor in avoiding the corporate frauds.
- Identify the steps involved in performing audit process.
- Determine the appropriate audit report for a given audit situation.

- Apply auditing practices to different types of business entities.
- Plan an audit by considering concepts of evidence, risk and materiality.

Course 4F: Goods and Service Taxes

- Understand the basic principles underlying the Indirect Taxation Statutes.
- Examine the method of tax credit. Input and Output Tax credit and Cross Utilisation of Input Tax Credit.
- Identify and analyse the procedural aspects under different applicable statutes related to GST.
- Compute the assessable value of transactions related to goods and services for levy and determination of duty liability.
- Develop various GST Returns and reports for business transactions in Tally.



BA (EHP)

Programme Outcomes

1. Students will draw the critical diagrams and graphs to explain and examine the application of various laws and principles of micro economics analysis.
2. To focus on optional allocation of resources and goods and how the allocation of these affects social welfare and serve as a guide during the creation of public policy.
3. To equip students in different modes of business communications those are required in the modern business environment and also to train students in writing business letters and applications letters.
4. To create social women entrepreneurs and future social leaders.
5. Analyze the behavioral fluctuations of consumer decision, identity the perfections and imperfections of markets.
6. It encompasses all aspects of property and liability insurance, including policies, premium structure, and constitution of insurable ricks, undertaking and reinsurance.
7. Influence of geography on history and its relevance to the Indian economy and culture during the Vedic period.
8. To observe the changes between pre-Historic time to Historic time critically.
9. To understand the ways of introduction of the English Education system and its impact on Indian Society.
10. To Acquire Knowledge of Freedom Movement, different phases in the Movement, and to understand the patriotic and Nationalistic spirit of the Freedom fighters.
11. To Know the progress of Freedom Movement in India and special reference to Local Women Freedom Fighters.
12. To know about Feudalism and Causes - Compass & Maps its relevant records.
13. To analyze the Revolutionary Age in Europe and its Global impact.
14. To have an idea on Political Policies education & Scientific Progress in Telugu Desam party.
15. Dalit Movement Understanding Education Literature Demand peace and Justice.
16. To Know about the Early trends towards Bifurcation of Andhra Pradesh.
17. Bifurcation of Andhra Pradesh and Politics, Economics.
18. Discontentment Unemployment in both Andhra Pradesh and Telangana.
19. Demonstrate knowledge of the Political Science.
20. Recall the previous knowledge about Political Science.

21. Understand the concept intrinsic to the study of Political science.
22. Have solid theoretical understand of rights and its theories along with the basic aspect of certain Political science.
23. Apply the knowledge to observe the field level phenomena.
24. Political science and understand the nature and scope.
25. Traditional and modern approaches of Political science.

Programme Specific Outcomes

1.Students will analyze the difference between micro economics analysis and macro - Economics and analysis various laws and principles of micro economics theory under consumption, and concepts relating to micro economics analysis.
2. Students will analyze concepts and relating to micro economics analysis with the help of example of real life with consumption, production and income distribution.
3. Students will analyze principles of micro economics and market conditions and application of concept demand elasticity and its relation with average and Marginal revenue.
4. Students will analyze how local, national and international politics and practices developed in the past continue to impacts their contemporary lives
5. Students understand the diversity of the experience as influenced the geographical location race ethnicity cultural traditions gender and class
6. Students analyze historical processes that shape individual's knowledge about the history of the area understudy
7. Students Critical thinking explained analyze a kea histarical event or prosess in world history.
8. Demonstrate knowledge of the Administration.
9. Provide hierarchy of Administration.
10. Correctly extract evidence from primary sources on Administration.
11. Present orally their conclusion on an argument or a summary of scholar's findings in an organization.
12. After completion of this course they gather knowledge about administration known as well.
13. Help to grow national and international understanding public Administration students.
14. Careers options for students to engage as educators, archivists to central services and

state services.

15. Public Administration helps the governance.
16. Understand, public administration as a discipline.
17. Understand, relation with other social sciences.
18. Develop the public private administration.
19. Prepare themselves for competitive carriers in public administration.
20. Critically analyze the various source of public administration.
21. Demonstrate knowledge of the thinking, narrative points of management.
22. Correctly extract evidence from primary sources public administration by analyzing and evaluating them.
23. Correctly extract evidence from primary sources on public Administration.
24. Evaluate of public Administration.
25. Present orally their conclusion on an argument or a summary of scholar's findings in a minnow brook-I&II.
26. After completion of this course they gather knowledge about the Administration.
27. Help to grow national and international understanding among public Administration students.
28. Careers options for students to engage as educators, archivists, producers of Administrative services.

BA (EPP)

Programme Outcomes

1. Students will draw the critical diagrams and graphs to explain and examine the application of various laws and principles of micro economics analysis.
2. To focus on optional allocation of resources and goods and how the allocation of these affects social welfare and serve as a guide during the creation of public policy.
3. To equip students in different modes of business communications those are required in the modern business environment and also to train students in writing business letters and applications letters.
4. To create social women entrepreneurs and future social leaders.
5. Analyze the behavioral fluctuations of consumer decision, identity the perfections and imperfections of markets.

6. It encompasses all aspects of property and liability insurance, including policies, premium structure, and constitution of insurable ricks, undertaking and reinsurance.
7. Demonstrate knowledge of the Administration.
8. Provide hierarchy of Administration.
9. Correctly extract evidence from primary sources on Administration.
10. Present orally their conclusion on an argument or a summary of scholar's findings in an organization.
11. After completion of this course they gather knowledge about administration known as well.
12. Help to grow national and international understanding public Administration students.
13. Careers options for students to engage as educators, archivists to central services and state services.
14. Public Administration helps the governance.
15. Understand, public administration as a discipline.
16. Demonstrate knowledge of the Political Science.
17. Recall the previous knowledge about Political Science.
18. Understand the concept intrinsic to the study of Political science.
19. Have solid theoretical understand of rights and its theories along with the basic aspect of certain Political science.
20. Apply the knowledge to observe the field level phenomena.
21. Political science and understand the nature and scope.
22. Traditional and modern approaches of Political science.

Programme Specific Outcomes

1.Students will analyze the difference between micro economics analysis and macro - Economics and analysis various laws and principles of micro economics theory under consumption, and concepts relating to micro economics analysis.
2.Students will analyze concepts and relating to micro economics analysis with the help of example of real life with consumption, production and income distribution.
3.Students will analyze principles of micro economics and market conditions and application of concept demand elasticity and its relation with average and Marginal revenue.
4. Understand Political Science as a discipline.
5. Understand relations with other social sciences.

6. Develop the public private political administration.
7. Prepare themselves for competitive carriers in Political science.
8. Critically analyze the various source of political science.
9. Demonstrate knowledge of the thinking narrative points of management.
10. Correctly extract evidence from primary sources Political science by analyzing and evaluating them.
11. Evaluate of Political science.
12. Present orally their conclusion on argument or a summary of scholar findings in an public relations Demonstrate knowledge of the Administration.
13. Provide hierarchy of Administration.
14. Correctly extract evidence from primary sources on Administration.
15. Present orally their conclusion on an argument or a summary of scholar's findings in an organization.
16. After completion of this course they gather knowledge about administration known as well.
17. Help to grow national and international understanding public Administration students.
18. Careers options for students to engage as educators, archivists to central services and state services.
19. Public Administration helps the governance.
20. Understand, public administration as a discipline.
21. Understand, relation with other social sciences.
22. Develop the public private administration.
23. Prepare themselves for competitive carriers in public administration.
24. Critically analyze the various source of public administration.
25. Demonstrate knowledge of the thinking, narrative points of management.
26. Correctly extract evidence from primary sources public administration by analyzing and evaluating them.
27. Correctly extract evidence from primary sources on public Administration.
28. Evaluate of public Administration.
29. Present orally their conclusion on an argument or a summary of scholar's findings in a minnow brook-I&II.
30. After completion of this course they gather knowledge about the Administration.
31. Help to grow national and international understanding among public Administration

students.

32. Careers options for students to engage as educators, archivists, producers of Administrative services.

ECONOMICS

Course Outcomes

S1-451: Micro Economics - Consumer Behavior

1. Households (demand) and business (supply) firms behave in various market structures to determine price and quantity of goods produced.
2. To understand Economics is about the allocation of scarce resources that scarcity forces choice, trade-offs exist and that every choice has an opportunity cost.
3. To understand the Demand concept and various Utility theories like Law of DiminishingMarginal Utility and Law of Equi Marginal Utility.
4. To get clarity about Ordinal approach of Utility i.e., Indifference Curves, Budget line andequilibrium of the Consumer.

S2-451: Micro Economics - Production and Price theory

1. Producers equilibrium with the help of Isoquants, Expansion path and Elasticity of Substitution.
2. Law of Variable Proportions and Returns to Scale.
3. Different types of markets and their features – Price determination under different markets.
4. Demonstrate Marginal Productivity Theory of Distribution, Theory of Wages, identify different types of rent, Theories of Rent, and illustrate different theories of Interest and Profit.

S3-451: Macro Economics - National Income, Employment and Money

1. Difference between Micro and Macro Economics, importance of Macro Economics andMacro Economic variables and Macro Economic Paradoxes.
2. Define and explain the process of calculating National Income, identify its components, demonstrate circular flow of income, analyze the various identities withgovernment

and international trade.

3. Demonstrate the meaning and functions of money, illustrate various versions of QuantityTheory of Money.
4. Explain the meaning of consumption function, relationship between APC and MPC, consumption and income, concept of Multiplier and Accelerator, MEC and rate of interest.

S4-451: Macro Economics-II - Banking and International Trade

1. Analyze different phases of trade cycles, demonstrate various phases of trade cycles, understand the impact of cyclical fluctuations on the growth of business, and lay policies to control Trade Cycles.
2. Illustrate the meaning of Inflation, identify different kinds of Inflation, causes and effects ofinflation on different sectors of the economy, and describe different measures to control it.
3. Identify types of banks, explain the meaning and functions of commercial banks, illustrate how bank create credit, and suggest the instruments tocontrol it.
4. To know about the Non-Banking Financial Instruments and Stock Market – SEBI.

S5-451: Economic Development & Indian Economy

1. Explain Economic Growth and Development, determinants of Economic Development andmeasurement of economic development.
2. Develop ideas of the basic characteristics of Indian Economy and AndhraPradesh economy.
3. Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of theongoing planning and economic reforms taken by the government.
4. Understand agriculture as the foundation of economic growth and development, analyzethe changing nature of agricultural sector and its contribution to the Indian economy.

S5-452: Indian and Andhra Pradesh Economy

1. Understand limited resources available in the economy. Realize the need to exploit and utilize through development and improvement of production techniques.
2. Productivity trends in Indian agriculture with special reference toAndhra Pradesh.
3. Green revolution and its impact on Indian economy.

4. Emerging trends in processing, marketing and exports in agriculturalproducts

S6-451: Public Finance

1. Meaning and Scope of Public Finance.
2. Sources of Public Revenue - Gift and Grants.
3. Classification of Public Expenditure – Principles of Public Expenditure.
4. Public Debt – Budget – Concepts of Budget – Indian Union Budget.

S6-452: D-1 Rural Economy

1. Understand the role of agriculture in development process.
2. Students will demonstrate importance of agricultural finance in modern agriculture and interlinkage of agricultural credit and other input markets and product markets.
3. Demonstrate production and processing trends in exports and imports of major agricultural commodities.
4. Understand the prospects and problems of rural development in India.

S6-453: D2-Rural Industrialization

1. Assesses the role of agriculture in rural development.
2. Understand the social structure of rural society in India.
3. Understand the social structure of rural society in India.
4. Assesses the impact of WTO on Indian agriculture with special reference to Andhra Pradesh.

S6-454: D3- Rural Marketing

1. Understand the meaning and importance of Agricultural inputmarketing, distribution channels of agricultural inputs.
2. Assesses the issues in seed marketing, strengths and weaknesses of Indian seed industry. themarketing systems for agricultural commodities and products.
3. Analyze the crop wise and area wise distribution of pesticides consumption.
4. Assesses the need for the development of agricultural machinery andimplements to suit the local resource endowments.

HISTORY

Course Outcomes

S1-441: Indian History and Culture (From Earliest Time To 647 Ad)

1. Influence of geography on history and its relevance to the Indian economy and culture

during the Vedic period.

2. To observe the changes between pre-Historic time to Historic time critically.
3. To understand the differences of Socio Religious conditions from Muryas to later Guptas with special reference to Position of Women in Epic Age.

S2-441: Early Medival Indian History and Culture From 647 To 1526 Ad

1. To Identify the different styles of Architecture from Pallavas to Vijayanagara period.
2. To aware of pallavas contribution and cultural development during the seven and eight centuries.
3. To understand the political and Administrative Structure of Delhi Sultanates period.
4. To know the cultural development In India between 13th and 15th centuries.

S3-441: Late Medieval & Colonial History of India (1526to 18s7 A.D.)

1. To have knowledge on the historical sources of Medieval period.
2. To acquiring knowledge in administration and society during the Mughal Period.
3. To have thorough knowledge on the Moghual Architecture style.
4. To have an idea on British politics and land revenue settlements during the period of 1757 to 1857.

S4-441: Social Reform Movement & Freedom Struggle (1820 To 1947 Ad)

1. To understand the causes for the revolts of Peasants, Tribes and Sepoys in 19th Century.
2. To understand the ways of introduction of the English Education system and its impact on Indian Society.
3. To Acquire Knowledge of Freedom Movement, different phases in the Movement, and to understand the patriotic and Nationalistic spirit of the Freedom fighters.
4. To Know the progress of Freedom Movement in India and special reference to Local Women Freedom Fighters.

S5-441: Age of Rationalism and Humanism the World Between 15th & 18 Centuries

1. To know about Feudalism and Causes - Compass & Maps its relevant records.
2. To observe the emergence of National States.
3. To analyze the Revolutionary Age in Europe and its Global impact.
4. To Know about Revolutions in various countries and causes.

S5-442: History and Culture of Andhra Desa (From 12th To 19th Century

1. To understand the Political conditions from Various dynasties of Andhra they inspired by the great peoples History to build up their Character.
2. To make a Comparative study of Traditions & Cultures of Qutub Shahis and Asaf Jahis.
3. The influence of the East India Company's and their administrations.
4. To observe the Impact of Industrial Revolution in Andhra Pradesh and special reference to Cotton Irrigation Polices in Andhra Pradesh.

S6-441: History of Modern Europe from 19th Century To - 1945 Ad)

1. To comparative study of industrial Revolution before and after in Europe.
2. Students have awareness on industrial revolution nature and its impact.
3. To observe the causes and consequences of Two World wars.
4. To acquire Knowledge of UNO and its Functions and special reference to Indo-Pak relations from 1945 to 1971AD.

S6-442: Cultural Tourism in Andhra Pradesh

1. To gain Knowledge of Terrorism basic Concepts.
2. To Compare the types of Tourism.
3. To Understand the History and Tourism relationship and development of Tourism in Andhra Pradesh.
4. To gain Practical Knowledge about Field Trip - to a Historical place, Tourist spot.

S7-442: Popular Movements in Andhra Desa (1848 To 1956 A.D)

1. The social Reforms of Kandukuri Veeresalingam, Raghupathi Venkatarantham Naidu, Guruzada Apparao and others Reformations to the societies.
2. To Compare the types of Tourism.
3. Freedom Movement in Andhra (1885-1920) factors in Impacts Swadeshi & Boycott Programs.
4. Movement for Separate Andhra State (19S3) Andhra Pradesh Congress Committee Conflicts between Coastal Andhra & Rayalaseema.

S8-442: CONTEMPORARY HISTORY OF ANDHRA PRADESH

1. To have an idea on Political Policies education & Scientific Progress in Telugu Desam

party.

2. Dalit Movement Understanding Education Literature Demand peace and Justice.
3. To Know about the Early trends towards Bifurcation of Andhra Pradesh.
4. Bifurcation of Andhra Pradesh and Politics, Economics. Discontentment Unemployment in both Andhra Pradesh and Telangana.

POLITICAL SCIENCE

Course Outcomes

Paper-I: Introduction to Political Science

1. To acquire knowledge about sources of Political Science.
2. To observe private and political administration.
3. To analysis good Government.
4. To understand the role making policy and implementation.

Paper-II: Basic Organs of the Government

1. Understanding the theoretical background Political Science.
2. Theory is the importance as practice.
3. Understanding the contribution of different social sciences thinkers to the theory of Political Science.
4. Learning political science function in a policy.

Paper-III: Indian Government and Politics

1. To observe the knowledge about the evolution of Indian Constitution.
2. To understand the familiarity with the constitutional frame work.
3. To acquire knowledge about the grasping the role of Judiciary system.
4. To analysis the Indian Constitution.

Paper-IV: Indian Political Process

1. To understand about evolution of Indian Political Process.
2. Describing issues of Indian political process.
3. Explain the understanding of issues confronted by Indian political process.
4. Gaining knowledge of various acts for weaker section and utilizing them in day to life.

5. Learning the influence of various emerging issues Indian Administration.

Paper-VI: Western Political thought

1. Understand Western Political thought.
2. Gaining theoretical understand about the concept theory and social contact.
3. Learning liberal and Marxist Philosophy different ways of life.
4. Awareness of various fundamental Rights.

PUBLIC ADMINISTRATION

Course Outcomes

S1-511: Introduction to Public Administration

1. To acquired knowledge about sources of public administration.
2. To observe private and public administration'
3. To analysis good governance.
4. To understand to role of making policy and implementation.

S2-511: Concept and Principles of Public Administration

1. Understanding theoretical background of public administration.
2. Theory is as importance as practice.
3. Understanding the contributions of different social science thinkers to the theory of public administration.
4. Learning public administration function in environment.

S3 – 511: Indian Administration

1. To observe the knowledge about the evolution of Indian administration.
2. To understand the familiarity with the constitutional framework.
3. To acquired knowledge about the grasping the role of union executive.
4. To analysis the Indian administration.

S3 – 511: Public Administration- Emerging Issues

1. To understand about Evolution of Indian administration.
2. Describing issues of Indian administration.

3. Explain the understanding of issues confronted by public administration currently the means to address them.
4. Gaining knowledge of various acts for weaker sections and utilizing them in day to life.
5. Learning the influences of various emerging issues on Indian administration.

S5 – 512: E-Governance in India

1. Understand governance and good governance.
2. Gaining theoretical understanding about the concept, theory and models of E-governance.
3. Learning practical application of e-governance in different walks of life.
4. 4. Awareness of various E-governance initiatives under taken to deliver public services to the stakeholders.

S5 – 511: Public Policy

1. Interdiction to public policy studying the modern and changing context.
2. Policy making process in India-known.
3. Understanding public policy making: major determinants.
4. Know the policy Evolution. -public policy models.

S6 – 511: VII – B Environmental Administration

1. Describe the meaning and significance.
2. Ozone layer protection.
3. Understand Environmental information system.
4. Classified environmental pollution.
5. Understand the environmental laws.

S6 – 510: VIII – Management of Resources

1. Human resource management.
2. Capacity Building.
3. Financial management.
4. To know Downsizing outsourcing.
5. Concept of HRD Training.

S6 – 513: VIII – A-2 Financial Administration

1. Describe the Financial administration.
2. Performance Budgeting.
3. Public Expenditure Theory and Growth.
4. Fiscal Federalism.
5. Public Enterprises and Local Bodies.

S6 – 514: VIII – A-3 Rural and Urban Governance

1. Describe the Urban and Rural Governance.
2. Explain the Municipal corporation's structure and committee system.
3. Need for Local and Urban governance bodies.
4. Describe the supervision over Local Bodies.
5. Understand the Democratic de centralization.

BSc (MPC)

Programme Outcomes

1. Scientific temper will be developed in Students.
2. Students will acquire basic Practical skills & Technical knowledge along with domainknowledge of different subjects in the science stream.
3. Students will become employable; they will be eligible for career opportunities in Industry,or will be able to opt for entrepreneurship.
4. Students will possess basic subject knowledge required for higher studies, professional andapplied courses like Management Studies, Law etc.
5. Students will be aware of and able to develop solution-oriented approach towards variousSocial and Environmental issues.
6. The students would learn about the behaviour of physical bodies it provides the basic concepts related to the motion of all the objects around us in our daily life.
7. The course builds a foundation of various applied field in science and technology; especially in the field of mechanical engineering.
8. The course comprises of the study vectors, laws of motion, momentum, energy, rotationalmotion, gravitation, fluids, elasticity and special relativity.
9. Communication skills: Chemistry graduates are expected to possess minimum standards of communication skills expected of a science graduate in the country. Graduates are expected to be well-versed in speaking and communicating their idea/finding/concepts to wider audience
10. Critical thinking: Chemistry graduates are expected to know basics of cognitive biases, mental models, logical fallacies, scientific methodology and constructing cogent scientific arguments.
11. Problem-solving: Graduates are expected to be equipped with problem-solving philosophical approaches that are pertinent across the disciplines;
12. Analytical reasoning: Graduates are expected to acquire formulate cogent arguments and spot logical flaws, inconsistencies, circular reasoning etc.
13. Graduates are expected to be keenly observant about what is going on in the natural surroundings to awake their curiosity.
14. Teamwork: Graduates are expected to be team players, with productive co-operations involving members from diverse socio-cultural backgrounds.

Programme Specific Outcomes

1. Scientific temper will be developed in Students.
2. Students will acquire basic Practical skills & Technical knowledge along with domainknowledge of different subjects in the science stream.
3. Students will become employable; they will be eligible for career opportunities in Industry,or will be able to opt for entrepreneurship.
4. Students will possess basic subject knowledge required for higher studies, professional andapplied courses like Management Studies, Law etc.
5. Students will be aware of and able to develop solution-oriented approach towards variousSocial and Environmental issues.
6. Student should be able to recall basic facts about mathematics and should be able todisplay knowledge of conventions such as notations, terminology.
7. Student should get adequate exposure to global and local concerns that explore themmany aspects of mathematical sciences.
8. Student is equipped with mathematical modeling ability, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
9. Student should be able to apply their skills and knowledge that is translate information presented verbally into mathematical form, select and use appropriate mathematical formulae ortechniques in order to process the information and draw the relevant conclusion.
10. Enabling students to develop a positive attitude towards mathematics as an interesting andvaluable subject of study.
11. Acquire comprehensive knowledge and skills.
12. Make use of the knowledge in an innovative manner.
13. Effectively apply the knowledge and skills to address various issues.
14. Learn “how to learn”- Self-motivated and self-directed learning.
15. Adapt to the ever-emerging demands of work place and life.
16. Be inquisitive and establish cause and effect relationship.
17. Investigate and report.

18. Use ICT effectively.
19. Access, retrieve and use authenticated information.
20. Access, retrieve and use authenticated information. Have knowledge of software applications to analyze data.
21. Develop rationale and scientific thinking process.
22. Use technology intelligently for communication, entertainment and for the benefit of mankind.
23. Ensure ethical practices throughout ones endeavors for the well-being of human race.
24. Predict and analyze problems.
25. Frame hypotheses.
26. Investigate and interpret empirical data.
27. Plan and execute action.
28. Work efficiently as an individual
29. Cooperate, coordinate and perform effectively in diverse teams/groups.
30. Prioritize common interest to individual interest.
31. Express thoughts in an effective manner
32. Listen, understand and project views in a convincing manner.
33. Decide appropriate media to share information
34. Develop skills to present significant information clearly and concisely to interested groups.
35. Understand sensibly the Environmental challenges.
36. Think critically on environment sustainability measures.
37. Propagate and follow environment friendly practices.
38. Render service for the general good of the society.
39. Involve voluntarily in social development activities at Regional, National, global levels.
40. Have own pride in volunteering to address societal issues viz: calamities, disasters, poverty, epidemics.
41. Be a patriotic citizen to uphold the values of the nation
42. Identify the goals, objectives and components of a project and decide the appropriate time of completion.
43. Plan, organize and direct the endeavors of teams to achieve the set targets in time.
44. Be competent in identifying opportunities and develop strategies for contingencies.

BSc (BZC)

Programme Outcomes

1. Understand the basic concepts of Botany in relation to its allied core courses.
2. Perceive the significance of microbes and Plants for human welfare, and structural and functional aspects of Plants.
3. Demonstrate simple experiments related to plant sciences, analyze data, and interpret them with theoretical knowledge.
4. To provide a comprehensive knowledge on various aspects related to microbes and plants.
5. To deliver knowledge on latest developments in the field of Plant Sciences with a practical approach.
6. To produce a student who thinks independently, critically and discuss various aspects of Plant life.
7. To enable the graduate to prepare and pass through national and international examinations related to Botany.
8. To empower the student to become an employee or an entrepreneur in the field of Botany/Biology and to serve the nation.
9. Social Interaction: Duringfield visits social interaction with locals.
10. Effective Citizenship: Work in multi-disciplinaryenvironments and be responsive to the changing needs of the society.
11. Ethics: Students learnethical approach, to conserve diversity of animal kingdom.
12. Environment and Sustainability: understandthe issues of environmental contexts and sustainable development.
13. Self-directed and Lifelong learning: Engage in lifelong learning, apply theknowledge judicially and remain continuously employable.
14. To provide Knowledge of various animals from primitiveto highly evolved forms and its complexity.
15. To foster curiosity in the students for Zoology & understand potential of various branches of Zoology.
16. To equip students with laboratory skills as well as field-based studies to become a successful entrepreneur.
17. To make aware about ways of conservation and sustainability.
18. To inculcate knowledge andmake successful career in zoology.

19. Communication skills: Chemistry graduates are expected to possess minimum standards of communication skills expected of a science graduate in the country. Graduates are expected to be well-versed in speaking and communicating their idea/finding/concepts to wider audience
20. Critical thinking: Chemistry graduates are expected to know basics of cognitive biases, mental models, logical fallacies, scientific methodology and constructing cogent scientific arguments.
21. Problem-solving: Graduates are expected to be equipped with problem-solving philosophical approaches that are pertinent across the disciplines;
22. Analytical reasoning: Graduates are expected to acquire formulate cogent arguments and spot logical flaws, inconsistencies, circular reasoning etc.
23. Graduates are expected to be keenly observant about what is going on in the natural surroundings to awake their curiosity.
24. Teamwork: Graduates are expected to be team players, with productive co-operations involving members from diverse socio-cultural backgrounds.

Programme Specific Outcomes

1. Understand the basic concepts of Botany in relation to its allied core courses.
2. Perceive the significance of microbes and Plants for human welfare, and structural and functional aspects of Plants.
3. Demonstrate simple experiments related to plant sciences, analyse data, and interpret them with theoretical knowledge.
4. Work in teams with enhanced inter-personal skills.
5. Develop the critical thinking with scientific temper.
6. Effectively communicate scientific ideas both orally and in writing.
7. To provide a comprehensive knowledge on various aspects related to microbes and plants.
8. To deliver knowledge on latest developments in the field of Plant Sciences with a practical approach.
9. To produce a student who thinks independently, critically and discuss various aspects of Plant life.
10. To enable the graduate to prepare and pass through national and international

examinations related to Botany.

11. To empower the student to become an employee or an entrepreneur in the field of Botany/Biology and to serve the nation.
12. Critical thinking: The curriculum helps to enhance the ability andthinking power of students.
13. Effective Communication: acquire communication skill through debates, seminars and presentations.
14. Social Interaction: Duringfield visits social interaction with locals.
15. Effective Citizenship: Work in multi-disciplinaryenvironments and be responsive to the changing needs of the society.
16. Ethics: Students learnethical approach, to conserve diversity of animal kingdom.
17. Environment and Sustainability: understandthe issues of environmental contexts and sustainable development.
18. Self-directed and Lifelong learning: Engage in lifelong learning, apply theknowledge judicially and remain continuously employable.
19. To provide Knowledge of various animals from primitiveto highly evolved forms and itscomplexity.
20. To foster curiosity in the students for Zoology & understand potential of various branches of Zoology.
21. To equip students with laboratory skills as well as field-based studies to become a successful entrepreneur.
22. To make aware about ways of conservation and sustainability.
23. To inculcate knowledge andmake successful career in zoology.
24. To inculcate research attitudeand aptitude among students.
25. To conduct basic and applied research which has societal andenvironmental value in Aquaculture discipline.
26. Acquire comprehensive knowledge and skills.
27. Make use of the knowledge in an innovative manner.
28. Effectively apply the knowledge and skills to address various issues.
29. Learn “how to learn”- Self-motivated and self-directed learning.
30. Adapt to the ever-emerging demands of work place and life.
31. Be inquisitive and establish cause and effect relationship.
32. Investigate and report.

33. Use ICT effectively.
34. Access, retrieve and use authenticated information.
35. Access, retrieve and use authenticated information. Have knowledge of software applications to analyze data.
36. Develop rationale and scientific thinking process.
37. Use technology intelligently for communication, entertainment and for the benefit of mankind.
38. Ensure ethical practices throughout ones endeavors for the well-being of human race.
39. Predict and analyze problems.
40. Frame hypotheses.
41. Investigate and interpret empirical data.
42. Plan and execute action.
43. Work efficiently as an individual
44. Cooperate, coordinate and perform effectively in diverse teams/groups.
45. Prioritize common interest to individual interest.
46. Express thoughts in an effective manner
47. Listen, understand and project views in a convincing manner.
48. Decide appropriate media to share information

MATHEMATICS

Course Outcomes

MT101: Algebra and Geometry

1. To learn divisibility of integers and congruence relations.
2. To learn operations on polynomials, finding GCD of two polynomials and roots ofpolynomials.
3. To learn basic matrix algebra and method to find solutions to system of linear equations. Also, to learn eigenvalues and eigenvectors of matrix.
4. To learn analytical geometry of 2 and 3 dimensions which include study of conics, planes,lines, sphere, cone and cylinder.

MT102: Calculus and Differential Equations

1. To learn basic properties of real numbers and its subsets which is backbone of RealAnalysis.
2. To study functions in detail which is a fundamental structure in all sciences, and to be ableto check continuity of a function.
3. To apply notion of derivative in mean value theorem and also in higher order derivativeswhich arise in all applied sciences
4. To be able to solve first order and first-degree differential equations.

Course: MT103: Mathematics Practical

1. Problem solving skills of students are enhanced.
2. Theoretical concepts are strengthened by solving maximum no. of problems
3 Due to one to one interaction with the teacher doubts of the students get cleared if any.
4. Students learn how to apply mathematical concepts to practical and real-life problems.
5. Interdisciplinary approach is developed.

Course:MT211 Multivariable Calculus I

1. To study functions and several variables.
2 To study the notion of Continuity and Differentiability of multivariate functions.
3. To find extreme values of multivariable functions using derivatives.
4. To learn evaluation of double and triple integration and its application to area and volume.

Course: MT212(B) Laplace Transform and Fourier series

1. To learn the evaluation of Laplace, transform of different types of functions, theirderivatives and integrations.
2. To learn the evaluation of Inverse Laplace, transform of functions, their derivatives andintegrations, and to learn application of Convolution theorem.
3. To learn to apply Laplace Transform to solve Ordinary Differential equations withconstant coefficients.

4. To learn to evaluate the Fourier series of various even and odd functions.

Course: MT221Linear Algebra

1. To learn the importance of linear transformation in Physics, Engineering, Social sciencesand various branches of Mathematics.
2. To learn to find Eigen values and Eigen vectors of a matrix which is used in the study ofvibrations, chemical reactions and geometry.
3. To learn Inner Product spaces and Gram-Schmidt process of orthogonalization.
4. To get well equipped with Mathematical Modelling abilities.

Course: MT222(B) Numerical Analysis

1. To learn to apply the various numerical techniques for solving real life problems.
2. The problems which cannot be solved by usual formulae and methods can be solved approximately by using numerical techniques.
3. To fit curve to the data by using 5 different methods of interpolation as well asextrapolation.
4. To find approximate solutions to difficult differential equations occurring in engineeringsciences.

Course: MT223 Mathematics Practical

1. Problem solving skills of students are enhanced.
2. Theoretical concepts are strengthened by solving maximum no. of problems
3. Due to one to one interaction with the teacher doubts of the students get cleared if any.
4. Students learn how to apply mathematical concepts to practical and real-life problems. Interdisciplinary approach is developed.

Course: MT331Metric Spaces

1. To equip students with basic mathematical tools such as open & close sets, continuity, connectedness, compactness which can be used to study general topology and real & complexanalysis.

2. To enhance abstract thinking and visualization of students.
3. To generalize the notion of distance, convergent sequence and continuity of functions.
4. To increase problem solving ability by solving examples and counter-examples of various concepts involved.

Course: MT332 Real Analysis I

1. To learn basic techniques and examples in analysis to be well prepared for courses likeTopology, Measure theory and Functional analysis.
2. To study various types of sets and relations, and concept of countable and uncountable.
3. To study concept of sequence and series and hence find sum of infinite terms with differentmethods.
4. To study notion of lub and glb which helps to learn integrations which helps to find areaunder any functions.

Course: MT334 Group Theory

1. To learn fundamental properties and mathematical tools such as closure, identity, inverseand generators.
2. To study algebraic structure 'Groups' in detail which is useful in study of Rings, Modules, Algebraic topology, Analysis.
3. To enhance abstract thinking of students.
4. To learn to compare two different algebraic structures and study transfer of properties in-between these structures through homomorphism and isomorphism.

Course: MT335 Ordinary Differential Equations

1. To learn methods to solve linear differential equation with constant coefficients.
2. To learn methods for solving non-homogenous differential equation.
3 To learn power series solution method using ordinary and singular points.
4. To solve system of first order differential equations.

Course: MT337F Number Theory

1. In this course, students learn the properties of the set of integers in detail.
2. Students can find integer solutions to the system of equations which arises in real lifeproblems.
3. Students study various theorems on primes and also learn congruence which are used incryptography.

Course: MT337A Operations Research

1. Students learn conversion of real-life problems into mathematical models which enhancetheir problem solving and decision-making abilities.
2. Students learn to calculate optimal solution of models through graphical and iterativemethods.
3. Students study transportation and assignment models and methods to solve them.
4. This helps them to get optimum solutions within the given constraints to problems arisingin industry.

Course: MT341 Complex Analysis

1. To learn basic algebraic properties of complex numbers and limit and continuity ofComplex functions.
2. To learn analytic functions and the C-R equations as its necessary and sufficientconditions.
3. To learn tools which are useful in finding integration of Complex valued functions.
4. To learn sequences and series of Complex valued functions.
5. To learn applications of residues and poles in integrals of complex functions.

Course: MT342 Real Analysis II

1. To learn Riemann Integral and its properties in detail, leading to fundamental theorem

of and Mean value theorems.

2. To study different tests for solving improper integrals of first and second kind.
3. To study pointwise and uniform convergence of sequences and series of functions.

Course: MT344 Ring Theory

1. To study the algebraic structure Ring in detail through various examples.
2. To learn the construction of field of quotients of an integral domain.
3. To study the Rings of polynomials and its factorization over a field.
4. To study the notion of ideals and factor rings with examples.
5. To study Unique Factorization domain, Euclidean Domain and related results.

Course: MT345 Partial Differential Equations

1. To understand the concept of Ordinary differential Equations in more than two variables.
2. To learn the application of Ordinary differential Equations through method to findOrthogonal Trajectories.
3. Introduction of first order Partial Differential Equations.
4. Learn methods to solve first order Partial Differential Equations.

Course: MT347D Graph theory

1. To introduce the concept of Graphs, which is an important tool for MathematicalModelling.
2. To study different types of graphs and operations on graphs.
3 To study the concept of trees in detail and algorithms to find special spanning trees.
4. To study Directed Graphs and its applications.

Course: MT347F Computational Geometry

1. Students learn the representation of objects in 2D and 3D in the form of matrices
2. To study the transformations like reflection, rotation, scaling, shearing, translation ofobjects in 2D and 3D and their geometrical significance.
3. Students learn to generate plane curves by using parametric equation
4. All the concepts help students to learn graphic display of objects on computer.

PHYSICS

Course Outcomes

DSC1: Mechanics:

1. The students would learn about the behaviour of physical bodies it provides the basic concepts related to the motion of all the objects around us in our daily life.
2. The course builds a foundation of various applied field in science and technology; especially in the field of mechanical engineering.
3. The course comprises of the study vectors, laws of motion, momentum, energy, rotational motion, gravitation, fluids, elasticity and special relativity.

DSC1 LAB:

1. Students would perform basic experiments related to mechanics and also get familiar with various measuring instruments would learn the importance of accuracy of measurements.

DSC2: Electricity and Magnetism:

2. It gives an opportunity for the students to learn about one of the fundamental interactions of electricity and magnetism, both as separate phenomena and as a singular electromagnetic force.
3. The course contains vector analysis, electrostatics, magnetism, electromagnetic induction and Maxwell's equations.
4. The course is very useful for the students in almost every branch of science and engineering.

DSC2 LAB:

1. Students would gain practical knowledge about electricity and magnetism and measurements such as: Resistance, Voltage, current etc.

DSC3: Thermal Physics and Statistical Mechanics:

1. course makes the students able to understand the basic physics of heat and temperature and their relation with energy, work, radiation and matter.

2. The students also learn how laws of thermodynamics are used in a heat engine to transform heat into work.

3. The course contains the study of laws of thermodynamics, thermodynamic description of systems,thermodynamic potentials, kinetic theory of gases, theory of radiation and statistical mechanics.

DSC3 LAB:

1. Students would gain practical knowledge about heat and radiation, thermodynamics, thermo emf, RTD etc. and perform various experiments.

DSC4: Wave and Optics:

2. The course comprises of the study of superposition of harmonic oscillations, waves motion (general), oscillators, sound, wave optics, interference, diffraction, polarization.
3. The course is important for the students to make their career in various branches of science and engineering, especially in the field of photonic engineering.

DSC4 LAB:

1. The practical knowledge of wave motion doing experiments: Tuning fork, electric vibrations.
2. understand the basic laws and explore the fundamental concepts of physics.
3. To understand the concepts and significance of the various physical phenomena.
4. To carry out experiments to understand the laws and concepts of Physics.
5. To apply the theories learnt and the skills acquired to solve real time problems.
6. To acquire a wide range of problem-solving skills, both analytical and technical and to apply them.

DSE1: Elements of Modern Physics:

1. To enhance the student's academic abilities, personal qualities and transferable skillsthis will give them an opportunity to develop as responsible citizens.
2. To produce graduates who excel in the competencies and values required for leadershipto serve a rapidly evolving global community.
3. To motivate the students to pursue PG courses in reputed institutions.
4. This course introduces students to the methods of experimental physics. Emphasis

will be given on laboratory techniques specially the importance of accuracy of measurements.

5. Providing a hands-on learning experience such as in measuring the basic concepts inproperties of matter, heat, optics, electricity and electronics.
6. They would also learn optical phenomena such as interference, diffraction and dispersion and do experiments related to optical devices: Prism, grating, spectrometers.

DSE1 LAB-Elements of Modern Physics

1. Students would know about the basic principles in the developmentof modern physics.
2. In this course students would be able to understand Basic experiments of modern physics such as: Determination of Plank's and Boltzmann's constants, Determination of ionization potential, Wavelength of H-spectrum, Single and double slit diffraction, Photo electric effect and determination of e/m.

DSE1: Solid State Physics:

1. Students would be able to understand various types of crystal structures and symmetries and understand the relationship between the real and reciprocal space and learn theBragg's X-ray diffraction in crystals. Would also learn about phonons and lattice.

DSE1 LAB- Solid State Physics:

2. The course Provides practical knowledge of various physical phenomena such as: magnetism, dielectrics, ferroelectrics and semiconductors.
3. Students would gain a hands-on learning experience by performing experiments on these properties of materials.

DSE2: Quantum Mechanics:

1. Quantum mechanics provides a platform for the physicists to describe thebehaviour of matter and energy at atomic and subatomic level.

2. The course plays a fundamental role inexplaining how things happen beyond our normal observations.

3. The course includes the study of Schrodinger equations, particle in one-dimension potential, quantum theory of H like atoms, atoms/molecules in electric and magnetic fields.

DSE2 LAB- Quantum Mechanics

1. Various practical problems solving methods related to QuantumMechanics would be learned by students.

DSE2: Mathematical Physics:

2. Would learn mathematical methods to solve the various problems inphysics. The topics include the calculus of functions, Fourier transform, special functions and special integrals, partial differential equations, complex analysis and variables.

DSE2 LAB- Mathematical Physics:

1. Various practical problems related to applications of mathematicaltools to solve the problems in physics would be learned by students.

SEC1 - Electronics –I:

2. The students would gain the knowledge of Basic Electronics circuits, network theorems and measuring instruments: They would know about common solid-state devices: Semiconductor diodes and transistors. The topics also include the Rectifiers, Filters and their applications, number systems and logic gates which are foundation blocks of digital electronics.

SEC2- Computational Physics:

1. This course would introduce students with the basic knowledge of computers their applications in solving common and scientific problems, the course includes scientificprogramming languages, scientific word processing and graphical analysis.

SEC3-Electronics II:

2. Students would learn about electronic circuits such as Amplifiers and Oscillators. Various types of Amplifier and Oscillator circuits their working and applications in in domestic, industrialand scientific devices/equipments.

SEC4: Radiation and Safety:

3. The students would gain the knowledge of different types of radiation and its interactions with matter, would also know about the photons, charged particles, neutrons, about radiation detection, monitoring and safety measures, and also learn about the applications of nuclear techniques.

CHEMISTRY

Course Outcomes

Course-I: Inorganic & Physical Chemistry

1. Understand the basic concepts of p-block elements.
2. Explain the difference between solid, liquid and gases in terms intermolecular interactions.
3. Apply the concepts of gas equations, pH and electrolytes while studying other chemistry courses.

Course-II: Organic & General Chemistry

4. Understand and Explain the differential behaviour of organic compounds based on fundamental concepts learnt.
5. Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.
6. Learn and identify many organic reaction mechanisms including Free radical substitution, Electrophilic Addition and Electrophilic aromatic substitution.
7. Correlate and describe stereochemical properties of organic compounds and reactions.

Course-III: Organic Chemistry & Spectroscopy

1.Understand preparation, properties and reactions of haloalkanes, haloarenes and oxygen containing functional groups.

3. Use the synthetic chemistry learnt in this to do functional group transformations.
4. To propose possible mechanisms for any relevant mechanisms.

Course-IV: Inorganic, Organic and Physical Chemistry

1. To learn about the laws of absorption of light energy by molecules and the subsequent photochemical reactions.
2. To understand the concept of quantum efficiency and mechanisms of photochemical reactions.

Course-V: Inorganic and Physical Chemistry

8. Understand of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation values.
9. Application of quantization to spectroscopy.
10. Various types of spectra and the IR use in structure determination.

6D: Environmental Chemistry

11. Understand the environment functions and how it is affected by human activities.
12. Acquire chemical knowledge to ensure sustainable use of the world's resources and ecosystem services.
13. Engage in simple and advanced analytical tools used to measure the different types of pollution.
14. Explain the energy crisis and different aspects of sustainability.
15. Analyze key ethical challenges concerning biodiversity and understand the moral principles, goals and virtues important for guiding decisions that affect earth's plant and animal life.

7D: Green Chemistry and Nanotechnology

16. Understand the importance of Green chemistry and Green synthesis.
17. Engage in Microwave assisted organic synthesis.
18. Demonstrate skills using the alternative green solvents in synthesis.
19. Analyze alternative sources of energy and carry out green synthesis.
20. Carry out the chemical method of Nanomaterial synthesis.

ZOOLOGY

Course Outcomes

First Year

1. Exposure to diversity in animal groups (invertebrates) (Protozoa to Hemichordata) and Chordata (Vertebrata).

2. To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.

Second Year

1. Students pursuing this course should have detailed studies of the various disciplines of the zoology subject and the other branches of zoology such as Cytology, Genetics, Evolution and Embryology, Physiology and Ecology etc.
2. The practical course intends to inform students about Cytology, Genetics and Embryology, Physiology and Ecology etc.

Third Year

3. Students pursuing this course should have detailed studies of the various disciplines of the zoology subject and the other branches of zoology such as Animal Biotechnology, Animal Husbandry and Immunology and Aquaculture Subjects like Principles of Aquaculture, Aquaculture Management, Post-harvest Technology etc.
4. The working principles, design guidelines and experimental skills associated with different fields of zoology such as Animal Biotechnology, Animal Husbandry and Immunology and Aquaculture Subjects like Principles of Aquaculture, Aquaculture Management, Post-harvest Technology etc.

BOTANY

Domain Subject [Botany] Objectives

1. To impart knowledge on origin, evolution, structure, reproduction and interrelationships of microbes and early plant groups.
2. To provide knowledge on Biology and Taxonomy of true land plants within a phylogenetic framework.
3. To teach aspects related to anatomy, embryology and ecology of plants, and importance of Biodiversity.
4. To explain the structural and functional aspects of plants with respect to the cell organelles, chromosomes and genes, and methods of plant breeding.

5. To develop a critical understanding on SPAC, metabolism and growth and development in plants.
6. To enable the students proficient in experimental techniques and methods of analysis appropriate for various sub-courses in Botany.

Domain Subject [Botany] Outcomes:

1. Students will be able to Identify, compare and distinguish various groups of Microbes and primitive plants based on their characteristics.
2. Students will be able to explain the evolution of Tracheophytes and also distribution of plants on globe.
3. Students will be able to discuss on Internal Structure, Embryology and Ecological adaptations of plants, and want of conserving Biodiversity.
4. Students will be able to Interpret life processes in plants in relation to Physiology and Metabolism.
5. Students will be able to describe ultra-structure of plant cells, Inheritance and Crop Improvement Methods.
6. Students will independently design and conduct simple experiments based on the Knowledge acquired in theory and practicals of the different sub-courses in Botany.

TELUGU

Course Outcomes

1. To enlighten about Hindu household Dharma, Soliclarity of marriage and the purpose of marital life. To be aware of rebirth philosophy, justice and Dharma.
2. To know about the value of loyalty and faithfulness.
3. To motivate students to safeguard the freedom and secularism of the country. Patriotic feelings are the key note of the lesson.
4. Students acquire knowledge of the historical events of various countries thereby enhancing their personality development and progress of our country.
5. Students are aware of the responsibility of the youth towards their parents and the society.
6. Students are motivated to learn the picturesque description of utter poverty and hunger and its consequences.
7. Students should plan and organize their life carefully.
8. Students learn about division of words, phrases, formation of sentences and the structure of the language.

HINDI

Course Outcomes

1. Students will be able to Develop HINDI reading & linguistic Comprehension of Students.
2. Develop interest in literature story and poetry.
3. Inculcate moral and human values within themselves.
4. Understand the types of HINDI Short Story writing.
5. Develop reading, writing &Communication Skills.
6. Develop knowledge of Literary forms HINDI poetry.
7. Understand the basic forms of story and poetry.
8. Learn values through literary work.

ENGLISH

Course Outcomes

1. To enrich the language proficiency of the students with emphasis on improving their LSRW skills.
2. To develop the communicative competences of the students theoretically and practically.
3. To improve the interactive skills of the students both in formal and informal situations.
4. To enhance the career-oriented skills and the employability of the students.
5. To develop English proficiency level of the undergraduate students apart from helping them to become autonomous in learning the language.
6. Students will be able to read and comprehend a text on their own.
7. Use simple and correct English.
8. Improve vocabulary
9. Develop their grammatical ability
10. Use different forms and formats of written correspondence
11. Be able to speak English meaningfully.
12. Use reading skills effectively
13. By the end of the course the learner will be able to
    - ➢ Comprehend different texts
    - ➢ Interpret different types of texts
    - ➢ Analyze what is being read
    - ➢ Build up a repository of active vocabulary
    - ➢ Use good writing strategies
    - ➢ Write well for any purpose
    - ➢ Improve writing skills independently for future needs
    - ➢ Speak fluently in English
    - ➢ Participate confidently in any social interaction
    - ➢ Face any professional discourse
    - ➢ Demonstrate critical thinking
    - ➢ Enhance conversational skills by observing the professional interviews
    - ➢ Use grammar effectively in writing and speaking
    - ➢ Demonstrate the use of good vocabulary

- ➢ Demonstrate an understanding of writing skills
- ➢ Acquire ability to use Soft Skills in professional and daily life
- ➢ Confidently use the tools of communication skills
- ➢ Listening for general content.
- ➢ Listening to fill up information gaps.
- ➢ Intensive listening
- ➢ Oral Practice
- ➢ Introducing Oneself/Others
- ➢ Seeking Information
- ➢ Describing objects/situations/people
- ➢ Role play
- ➢ Expressing agreement/disagreement
- ➢ Basic Components of Grammar
- ➢ Oral Practice
- ➢ Correction of Sentences
- ➢ Grammar for Composition
- ➢ Professional Skills
- ➢ Skimming and Scanning Skills of
- ➢ Comprehension
- ➢ Intensive and Extensive Reading
- ➢ Identifying Topic Sentence
- ➢ Understanding Connectives
- ➢ Writing a Sentences
- ➢ Paragraph Writing
- ➢ Formal and Informal Letter
- ➢ Note Making and Note Taking
- ➢ Use of appropriate Vocabulary
- ➢ E-Correspondence