



## VAAGDEVI DEGREE & P.G COLLEGE

(Approved by A.I.C.T.E, NEWDELHI & Affiliated to Kakatiya University)

#2-2-457/A, Kishanpura, Hanamkonda-506001, Warangal, T.S.

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## 2.6 COURSE OUTCOMES



Viswambhara Educational Society

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### DEPARTMENT OF BOTANY

S.No	PAPER	NUMBER	COURSE OUTCOME
01	<b>SEMESTER-I TITLE:</b> <b>MICROBIAL DIVERSITY OF LOWER PLANTS</b>	<b>CO1</b>	To gain knowledge about microbial diversity
		<b>CO2</b>	To have the ability to utilize the concept of Mush room cultivation.
		<b>CO3</b>	To understand the phylogeny of plants.
		<b>CO4</b>	To know about various plant diseases and their Control measures.
		<b>CO5</b>	To understand life cycles of different algal species.
		<b>CO6</b>	To explore economic importance of algae & fungi.
		<b>CO7</b>	To know the evolution of sporophytes in bryophytes.
		<b>CO8</b>	To understand the stellar evolution and seed Formation habit in pteridophytes.
02	<b>SEMESTER -II TITLE:</b> <b>GYMNOSPERMS, TAXONOMY OF ANGIOSPERMS AND ECOLOGY</b>	<b>CO1</b>	To gain knowledge about lifecycles of gymnosperm plants.
		<b>CO2</b>	To explain about fossils and fossilization.
		<b>CO3</b>	To understand about geological timescale.
		<b>CO4</b>	To recognize the major groups of vascular plants and their phylogenetic relationships.
		<b>CO5</b>	To gain proficiency in the use of keys and Identification manuals to identify any unknown plants to species level.
		<b>CO6</b>	To understand ecological relationships between organisms and their environment.
		<b>CO7</b>	To identify diversity of life forms in an ecosystem.
		<b>CO8</b>	To understand the role that biodiversity plays In conservation science.
		<b>CO9</b>	To gain knowledge about lifecycles of gymnosperm plants.

03	<b>SEMESTER -III TITLE:</b>	<b>CO1</b>	To gain knowledge of plant cells, tissues and Their functions.
	<b>PLANTANATOMY AND EMBRYOLOGY</b>	<b>CO2</b>	To make connections between plant anatomy And the other major disciplines of biology.
		<b>CO3</b>	To identify and compare structural differences Among different tax of vascular plants.
		<b>CO4</b>	To know the structure and development of Monocot and dicot embryos.
		<b>CO5</b>	To compare the function and morphology of Pollen grains.
		<b>CO6</b>	Describe and illustrate modern and fossil Spores and pollen grains.
04	<b>SEMESTER-IV TITLE: CELL BIOLOGY, GENETICS&amp;PLANT PHYSIOLOGY</b>	<b>CO1</b>	To explain the structure of Cell components And their functions.
		<b>CO2</b>	To describe cell division in plants.
		<b>CO3</b>	To have knowledge of the nature and function Of genes, processes of inheritance.
		<b>CO4</b>	To describe linkage, crossing over and mutations.
		<b>CO5</b>	To understand plant physiological processes And metabolism.
		<b>CO6</b>	To explain the role of micro nutrients in plant Grow than development.
		<b>CO7</b>	To relate photosynthes is with the formation of Primary and secondary metabolites.
		<b>CO8</b>	To clarify the mechanism and breaking of dormancy.
05	<b>SEMESTER-V TITLE: BIODIVERSITY &amp;CONSERVATION</b>	<b>CO1</b>	To have the knowledge of elements of environment.
		<b>CO2</b>	To understand the importance of Climatic factors like light, temperature, inrelatedto growth of plant.
		<b>CO3</b>	To know how to conserve the threatened plants in environment.
06	<b>SEMESTER- -VI TITLE: TISSUE CULTUREAND BIOTECHNOLOG Y.</b>	<b>CO1</b>	To explain the main techniques of in vitro Culture of plant cells& tissues.
		<b>CO2</b>	To know the methods used for the bio- Production of plants econdarymetabolites.
		<b>CO3</b>	To know the main techniques of genetic manipulation of plant organisms.
		<b>CO4</b>	To Know the Process of various metabolic Activities in plant body
		<b>CO5</b>	To know about various methods in tissue culture

		<b>CO6</b>	To know the importance of tissue culture and biotechnology
		<b>CO7</b>	To know the applications of biotechnology.

### DEPARTMENT OF CHEMISTRY

S.No	PAPER	NUMBER	COURSE OUTCOME
1	CHEMICAL BONDING	<b>C01</b>	To know about the Ionic solids, Lattice energy and solubility of Ionic solids.
		<b>C02</b>	To know about the Fajan's rule, polarity and polarizability of ions.
		<b>C03</b>	To know about Hybridization, Shapes of molecules and Molecular Orbital Theory.
2	P-BLOCK ELEMENTS I	<b>C01</b>	To know about the Diboranes, Boron Nitrogen Compounds
		<b>C02</b>	To know about the Carbides and Silicones
		<b>C03</b>	To gain the knowledge on Nitrides, Reactivity-hydrolysis, Reactions of hydrazine, hydroxyl amine and phosphazenes.
3	STRUCTURAL THEORY IN ORGANIC CHEMISTRY	<b>C01</b>	To acquire the knowledge on Bond polarization, Applications of inductive effect
		<b>C02</b>	To know about stability of Carbocations, Carbanions and free radicals.
		<b>C03</b>	To gain knowledge on Hyper conjugation and its applications.
4	ATOMIC STRUCTURE AND ELEMENTARY QUANTUM MECHANICS	<b>C01</b>	To know about Black body Radiation, Heat capacities of solids
		<b>C02</b>	To gain knowledge about photoelectric effect, Compton effect, Debroglies Hypothesis
5	ISOMERISM	<b>C01</b>	To know about classification of Isomers, Representation of Stereoisomers
		<b>C02</b>	To gain knowledge on conformational and configurational Isomers
6	CHEMISTRY OF D- BLOCK ELEMENTS	<b>C01</b>	To know about the characteristic Properties of d- block elements
		<b>C02</b>	To gain knowledge about the comparison of

			Ti,Cr,Cu Triads		
7	CARBONYL COMPOUNDS	CO1	To know the Physical and chemical properties of aldehydes and ketones		
		CO2	To differentiate the aldehydes and ketones based on reaction with Tollens, Fehlings Reagents		
8	ELECTRO CHEMISTRY	CO1	To know the conduction in metals and electrolytic solutions, Types of Conductances		
		CO2	To acquire knowledge on migration of ions& Kohlrausch law, Debye-Huckel Onsager equation, Transport number		
		CO3	To gain knowledge on Electrolytic & Galvanic cells, EMF, Types of Reversible Electrodes		
9	DILUTE SOLUTIONS & COLLEGIATIVE PROPERTIES	CO1	To know about Dilute solutions, Relative lowering of vapour pressure, Osmotic pressure		
		CO2	To gain knowledge on Elevation in boiling point & Depression in freezing point		
10	COORDINATION COMPOUNDS	CO1	To know the simple inorganic molecules & coordination complexes, Nomenclature-IUPAC Rules, Coordination no, Types of Ligands		
		CO2	To gain knowledge on Werner theory, Valence bond theory, Crystal field Theory		
		CO3	To know about isomerism in coordination compounds		
11	AMINES, CYANIDES & ISOCYANIDES	CO1	To know the classification of Amines, Preparation methods of Amines		
		CO2	Hinsberg separation method of Amines, Diazonium salts Preparation & Properties		
		CO3	To gain knowledge on preparation and properties of cyanides and Isocyanides		

12	THERMO DYNAMICS	CO1	To know about First law of Thermodynamics, Thermodynamic quantities, sign convention problem on first Law		
		CO2	To gain knowledge on Heat capacities at constant pressure & volume		
		CO3	To know about Second law of Thermodynamics, Carnot theorem, Carnot cycle		

		<b>CO4</b>	To know about Entropy, Enthalpy changes, Gibbs equations and Maxwell Relations
13	CHROMATOGRAPHY	<b>C01</b>	To know about solvent Extraction, Classification of Chromatographic methods
		<b>C02</b>	To gain knowledge briefly about Thin Layer ,Column ,Paper chromatographic Techniques
		<b>C03</b>	To acquire knowledge about Ion Exchange, Gas, High Performance Liquid Chromatography Techniques
14	MEDICINAL CHEMISTRY	<b>C01</b>	To know about Diseases, Terminology in medicinal Chemistry, Drugs, ADME
		<b>C02</b>	To gain knowledge on Enzymes and Receptors
		<b>C03</b>	To acquire Knowledge on Synthetic and Therapeutic Activity of Drugs

#### DEPARTMENT OF COMMERCE

S.No	Year/Semester	Subject/Course	Subject/CourseOutcome
01	B.Com I Year /I Semester	CO1:Financial accounting I	To understand the importance of accounting and preparation of final accounts
02		CO2:Business Organisation and Management	To understand the importance and types of Business organization and the principles of management.
03		CO3:Fundamentals of Information Technology	To understand the generations of computer technology and introduction to Microsoft Windows
04	B.Com I Year/II Semester	CO1:Business Law	To understand the concepts of Business Law, and the provisions relating to Companies Management
05		CO2:Financial accounting II	To understand the accounting procedure of different types of business organizations such as consignment and Joint Ventures etc.
06	B.Com II Year /III Semester	Advanced accounting	To understand the Accounting procedure in the companies and Valuation of good will and shares.

07		Business statistics	To understand the basic statistical concepts such as measures of central tendency and measures of dispersion and Correlation
08		Income Tax	To understand the Indian Income Tax act and Valuation of Income of an Assessee.
09		Entrepreneur Development and Business Ethics	To understand the characteristics of an entrepreneur, types of entrepreneurs and the various business ethics.
10	B.Com II Year /IV Semester	Business Statistics	To understand the statistical tools like regression ,index numbers and probability
11		Corporate Accounting	To understand the accounting procedure of corporate entities.
12		Income Tax	To understand the valuation of income of an Assesses under five headsasperIncomeTaxAct, 1961.
13		Auditing	To understand the importance of auditing. Vouching, detecting and rectification of errors, valuation of assets and liabilities.
14	B.Com III Year/V Semester	Business Laws	To understand the development of Business Laws , Intellectual Property Rights
15		Banking Theory and Practice	To understand the development of Banking System in India and functions of commercial and central bank.
16		Computerised Accounting	To understand the maintenance of accounts in accounting software such as Tally.
17		Cost Accounting	To understand the importance of Cost Accounting in the industries and different types of cost determination.
18		Consumerism	To understand the rights of the Consumer and protection mechanism for consumer rights

19		Organizational Behavior	To understand the groups and the behavior of groups in an organisation. Group dynamics, group conflict management, personality and its traits.
20	B.Com III Year / VI Semester	Commerce Lab	To have a practical exposure to the various components and concepts of commerce.
21		Tax Planning and Management	To understand the importance of tax planning and tax management.
22		Company law	To understand the Company Law 2013. Formation and Management of Companies.
23		Financial Institutions and Markets	To understand the role of Financial Institution and Markets in the development of Indian Economy and structure of Indian Financial System.
24		Managerial Accounting	To understand the importance of usage of Accounts for the managerial decisions. Cash Flow, Funds Flow statements.
25		Preparation of Tax Returns	To understand the PAN Card, E Filing etc.
26		Advertisement	To understand the role of advertisement in the economy.. Preparation of Advertisement copy. Influence of Advertisement on sales of an organisation.
27		Human Resource Management	To understand the importance of human resource for the organisation development and training, recruitment



CO	YEAR/SEM	SUBJECT/COURSEOUTCOME
<b>BBA (LOGISTICS) I YEAR &amp; I -SEM</b>		
<b>CO1</b>	<b>WAREHOUSING DISTRIBUTION AND CENTRE OPERATIONS</b>	Defend the key considerations that inform the location, design, and operations of a warehouse or distribution centre. Evaluate the impacts of warehouse or distribution centre operations on the performance of the whole logistics system. Analyse warehouse or distribution centre continuous improvement processes using quality and lean management principles and tools.
<b>CO2</b>	<b>MATERIALS MANAGEMENT</b>	Explain the scope of materials and spare parts management in an organization. Explain the key characteristics of the purchasing system. Apply the policies of Inventory Management and Develop over all materials requirement plan. Explain the ERP System for Materials management. Understand the importance of warehouse and supplier development in materials management
<b>CO3</b>	<b>BUSINESSSTATISTICS</b>	To develop Basic skills for quantitative application in business situations. To impart knowledge to the students about statistical tools and its applications. to build skills for statistical inference of business data Data description and data presentation in a business environment Measures of Central Tendency Basic probability concepts and probability distributions as an aid to business decision making
<b>CO4</b>	<b>FUNDAMENTALSOFLLOGIS TICS</b>	This program will lead to are warding career in Logistics and Supply Chain Management. Effective logistics and supply chain management has become prominent for companies across E-commerce, FMCG, manufacturing, retail and more such do mains therefore large corporate shave logistics and supply chain Management as a key focus area. Logistics degrees provide transferable skills to help students remain
<b>BBA(LOGISTICS) I YEAR &amp; II-SEM</b>		
<b>CO1</b>	<b>HUMAN RESOURCE MANAGEMENT</b>	To understand and analyze the concepts of Accounting as a Information system, Importance and Scope, Limitation, Users of accounting information, Accounting principles, Accounting concepts, principles and Conventions. Concepts of subsidiary books and how it's prepared. And understanding of cash book preparation, fundamental concepts of final accounts and to know the gross, net profit and financial position of the organization, financial statement analysis and its methods, accounting standards and its importance. How they can apply to preparation of accounting

<b>CO2</b>	<b>FORE CASTING AND INVENTORY MANAGEMENT</b>	To relate the theory and real business situations. To ascertain the various techniques and employ in real situations. To critically evaluate the problems and to prepare innovative solutions.
<b>CO3</b>	<b>SURFACE TRANSPORTATION</b>	Identifying various transports, asking questions about boarding them, and analyzing appropriate transports for different trips. Activities include identifying transports from objects and videos, describing trips using them, and a worksheet. The lesson provides links to videos about transports and plans to use flash cards, questions, and sounds to help students learn the names and characteristics of common ground, water and air transports.
<b>CO4</b>	<b>FINANCIAL AND COST ACCOUNTING</b>	Understand the nature and scope of Cost Accounting. Gain knowledge about the advantages of cost accounting and classifications of various costs. Acquire knowledge about accounting and control of material cost and labour cost.
<b>CO5</b>	<b>FRIEGHT FORWARDING (OCEAN AND AIR CARGO)</b>	Understand concept of freight forwarding and air cargo. Understand the process involved in air cargo management. Quote the rates for transfer to air cargo from origin to the destination.
<b>BBA(LOGISTICS) II YEAR &amp; I-SEM</b>		
<b>CO1</b>	<b>BASIC QUALITY MANAGEMENT</b>	To understand the concept of Quality, the Implication of Quality on Business, To Implement Quality Implementation Programs have exposure to challenges in Quality Improvement Programs.
<b>CO2</b>	<b>PERSONALITY DEVELOPMENT</b>	The student will be able to understand, analyse develop and exhibit accurate sense of self .Think critically. Demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment. Learn to balance confidence with humility and overcome problems associated with personality

<b>CO3</b>	<b>FINANACIAL MANAGEMENT</b>	Understanding the basic inputs with regard to globalisation, multinational firms and emerging trends of trade. Acquiring basic knowledge with respect to risk and exposure and its measurement. balance of payments and the economic factors that cause exchange rates to fluctuate. Learn market instruments and modes of financing in international trade. Global Financial Regulatory with respect to trade.
<b>CO4</b>	<b>MISFOR LOGISTICS</b>	Compare the processes of developing and implementing information systems. Outline the role of the ethical, social, and security issues of information systems. Translate the role of information systems in organizations, the strategic management processes, with the implications for the management. Apply the understanding of how various information systems like DBMS work to gether to accomplish the information objectives of an organization.
<b>CO5</b>	<b>RETAIL LOGISTICS AND E-COMMERCE</b>	Enhancecommerceande-commerceknowledge.Developmentofe-Commerceskills.CompetenttoworkinVirtualenvironment.Expertiseone-Commercetechologyandaccountingapplications. DevelopEmployabilityskillstobesuccessfulinthevirtualbusinessenviroment.
<b>CO6</b>	<b>LINER LOGISTICS</b>	Ability to articulate the definitions,characteristics,and operational aspects of liner logistics Show casing a comprehensive grasp of maritime operations. Ability to apply this knowledge to real-world scenarios, ensuring effective container operations in the industry.

**BBA(LOGISTICS) II YEAR & II-SEM**

<b>CO3</b>	<b>MARKET RESEARCH</b>	To understand and analyze the concepts Nature and scope of marketing research, Role of market in research in decision making. There search process, Steps in the research process; designing there search proposal, Sources of data primary data and secondary data, survey method, of data collection, Observation method fundamental concepts Advantages and disadvantages of secondary data, Criteria for evaluating secondary sources, secondary sources of data in Indian context. Concept of measurement of scaling Types of Scales- Nominal, Ordinal, Interval and Ratio scales. Sampling techniques, Data Analysis: Z-test, Paired T-test, chi square test
<b>CO4</b>		
<b>CO2</b>	<b>PORT TERMINAL LOGISTICS</b>	We will be able to apply the concepts & principles of management in real life industry, design & develop organization chart& structure for an enterprise. Maintain materials departments, Determine EOQ.Able to identify Marketing mix strategies for an enterprise.Able to apply PERT/CPM Charts for projects of an enterprise and estimate time & amp; cost of project.

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KISHANPURA,HANAMKONDA,WARANGAL.		
B.COM(BUSINESSANALYTICS)PROGRAMCOURSEOUTCOMES		
CO	YEAR/SEM	SUBJECT/COURSEOUTCOME
<b>B.COM (BUSINESSANALYTICS) I YEAR &amp; I-SEM</b>		
<b>CO1</b>	<b>Financial Accounting-I</b>	Exemplify to prepare and analyse the financial statements. Acquire the basic concept of accounting terms. Journalize the ability to rectify the error sin bank reconciliation statement. Exposed to various methods of depreciation and insurance accounting. Demonstrate insight into single and double entry system of accounting.
<b>CO2</b>	<b>Business Organization &amp; Management</b>	Examine the dynamics of the most suitable form of business organization in different Situations. Evaluate the various elements affecting the business environment.Analyse business models for different organisations.Record and report emerging issues and challenges of business organisations.Evaluate changes in the working pattern of modern organizations
<b>B.COM(BUSINESSANALYTICS) I YEAR &amp; II-SEM</b>		
<b>CO1</b>	<b>Financial Accounting-II</b>	Abridge the ability to prepare and analyse the branch account. Acquire concept of departmental accounting. Build the ability to interpret hire purchase and installment system. Exposed to various methods of depreciation and insurance accounting. Demonstrate the concept of partnership accounts. Acquire in depth knowledge of financial accounting
<b>CO2</b>	<b>Business Laws</b>	An ability to apply knowledge of Business Law. Ability to know the details of Contract, Sale of Goods and Negotiable Instruments. Ability to know the formation and some laws of Company, Partnership and Limited Liability Partnership. Ability to know the Intellectual Property Rights, Competition Law and Law of Consumer Protection.
<b>B.COM(BUSINESSANALYTICS)II YEAR &amp; I-SEM</b>		
<b>CO1</b>	<b>Principles of Insurance</b>	Provide a basic understanding of the Insurance Mechanism. Identify the relationship between Insurers and their Customers and the importance of Insurance Contacts. Give an over view of major Life Insurance and General Insurance Products

<b>CO2</b>	<b>Practice of Life Insurance</b>	Insurance companies in India Analyze various schemes and policies related to Life Insurance sector. Choose suitable insurance policy for given situation and respective persons. Acquire Insurance Agency skills and other administrative skills. Acquire skill of settlement of claims under various circumstances
<b>CO3</b>	<b>Advanced Accounting</b>	Understand financial statements and use financial ratios for analyzing the performance, efficiency, and effectiveness of the company's management. Using common size financial statements and trend index analysis for comparison matters among companies and across the years. Understanding cash flow ratios and information. Exploring the different kinds of organizational structures, and the types of acquisitions. Understand ownership and control influence from an accounting perspective. Understand the Consolidation procedures. Understand some different cases of the consolidation process
<b>CO4</b>	<b>Business Statistics-I</b>	Organize, manage and present data. Analyze statistical data graphically using frequency distributions and cumulative frequency distributions. Analyze statistical data using measures of central tendency, dispersion and location.
<b>B.COM(BUSINESSANALYTICS) IITYEAR &amp; II-SEM</b>		
<b>CO1</b>	<b>Practice of General Insurance</b>	Understand the Features of General Insurance and Insurance Companies in India. Analyze various schemes and policies related to General Insurance sector. Choose suitable insurance policy under Health, Fire, Motor, and Marine Insurances. Acquire General Insurance Agency skills and administrative skills. Apply skill for settlement of claims under various circumstances
<b>CO2</b>	<b>Regulation of Insurance Business</b>	Explain insurance operation, including functions of insurance and insurance markets in India. Apply the knowledge of current information, theories and models, and techniques and practices in all of the major business disciplines. Evaluate the Regulation of Indian Insurance Legislation and Insurance Act1938.Examine insurance business conducting Legislation and its environment in India Develop valuable insights in to the key principles and practices that regulate the business and International Trend.

<b>CO3</b>	<b>Income Tax</b>	Know about various basic concepts used in Income tax Act. Impart knowledge on the provisions of Income tax law and practice and make students Compute the assessment practices under the various heads of income Enable students to develop experience in identifying tax issues and applying the income tax Law to arrive at reasoned solutions to problems. Described about the provisions of salary income, House property & business or profession and their computation. Exemplify professional judgments and advice on issues relating to tax payable by Individuals ,and companies and other business structures in order to calculate an amount of tax payable or a dvicon
<b>CO4</b>	<b>Business Statistics -II</b>	Familiarizes the concept of statistics. Provide practical exposure on calculation of measures of average. Provide practical exposure on calculation of measures of correlation and irrigation. Introduce the students about the concept of provability. Provide practical exposure on calculation of trend analysis.
<b>B.COM(BUSINESSANALYTICS)III YEAR &amp; I-SEM</b>		
<b>CO1</b>	<b>Business Economics</b>	Apply the concept of opportunity cost Employ marginal analysis for decision making Analyze operations of market sunder varying competitive conditions Analyze causes and consequences of un employment, inflation and economic growth
<b>CO2</b>	<b>Cost Accounting</b>	Acquire the basic knowledge on cost accounting concepts, elements and classification of cost and overheads, levels of material control, purchase and stores control. Understand the techniques of costing ,preparation of cost sheet, Need for material control, control of idle time of labour, methods of calculation of labour turn over and classification of over heads. Develop the applications skill in drafting accost sheet, estimation of tender, EOQ, Methods of valuing material issue.Analyse the various system of wage payment and methods of operating costing. Evaluate the process losses, wastage, scrap, normal and abnormal losses and Reconcile the profits of Financial and Cost Accounting, Treatment of profits in Contract costing

<b>CO3</b>	<b>Computerized Accounting</b>	<p>To introduce the students to Basic of Accounts and the usage of Tally for accounting purpose. To help students to work with well-known accounting software i.e. Tally ERP.9. Tally is an accounting package which issued for learning to maintain accounts. Students will learn to create company, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments, and also print financial statements, etc.in Tally ERP.9software.</p> <p>Demonstrate an understanding of various predefine dinventory vouchers to suit the various business requirements and flexibility to create unlimited stock items, uses impleto complex conversion units and generate invoices with the required information and dimensions.</p> <p>Demonstrate an understanding of how to maintain a pay roll register. This helps to understand how to maintain management related information, statutory forms and reports in the prescribed formats such as: Pay Slip, Pay roll Statements, Attendance and Overtime Registers etc Develop the students use the Tally software, that help stop repara Accounting, Payroll, Billing, Sales and Profit Analysis, Auditing Banking Inventory, Taxation such as GST,VAT,TDS,TCSetc</p>
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**B.COM(BUSINESSANALYTICS) III YEAR & II-SEM**

<b>CO1</b>	<b>Research Methodology and Project Report</b>	<p>The course will also enable them to collect the data, edit it properly and analyse it accordingly. Thus, it will facilitate students 'prosperity in higher education. The Students will develop skills in qualitative and quantitative data analysis and presentation. Students will be able to demonstrate the ability to choose methods appropriate to research objectives.</p>
<b>CO2</b>	<b>Cost Control and Management Accounting</b>	<p>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. Analyzecost-volume-profit techniques to determine optimal managerial decisions. Compare and contrast the financial statements off irmsand interpret the results. Prepare analysis of various special decisions, using relevant management techniques.</p>



<b>CO3</b>	<b>Theory and Practice of GST</b>	Student will be equipped with the knowledge of basic concepts of goods and service tax,CGST, SGCT, IGST,classification of goods and valuation rules. Student will learn the basic procedure under GST incorporating the registration, filing of returns and payment of tax. Student will be equipped with the knowledge of composition scheme under GST, Exemptions under GST, concept of supply of goods, nature of supply. Students will also learn about the customs law, valuation and baggage rules.
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VAAGDEVI DEGREE & P.G. COLLEGE		
KISHANPURA, HANAMKONDA, WARANGAL.		
BBA (RETAIL OPERATIONS) PROGRAM COURSE OUT COMES		
CO	YEAR/SEM	SUBJECT/COURSE OUTCOME
BBA(RETAIL OPERATIONS) I YEAR & I-SEM		
<b>CO1</b>	INTRODUCTION TO RETAIL OPERATIONS	At the successful completion of this certificate course, students will be able to, Understand the Organized retail sector and its operations. Understand the various strategies involved with the retail sector. Learn how to deal with customers and understand their needs to sustain in the market. Understanding how to manage retail during crisis.
<b>CO2</b>	INSTORE CASHIERING AND MERCHANDISING OPERATIONS -I	How the role of cashier in retail is playing a vital role How to identify key Cashiering SOPs which facilitate in cash management Explain how the various types of theft and frauds in retail stores, Selecting the appropriate measures of preventing theft and frauds, Way to incorporate the various anti-theft security systems.
<b>CO3</b>	BUSINESS COMMUNICATIONS SKILL	Communicate with more clarity that would facilitate the organizational work process. Break the barriers and help in the process of earning greater commitment among stakeholders to goal achievement .Handle all sorts of organizational communications, within and beyond. Demonstrate cross-cultural skills in a trans-national business environment
BBA(RETAIL OPERATIONS) I YEAR& II -SEM		

<b>CO1</b>	<b>RETAIL BUSINESS ENVIRONMENT</b>	Gain hands on experience on different job roles in retail business and therefore become job ready for the current retail market/industry. Gain thorough know ledge on general management principles to become skilful and, resourceful Managers .Learn to conduct market research, surveys and comparative studies. Learn the importance of Visual Merchandise and Visual Communication. Know the various avenues on Entrepreneurship, Franchising, Market Researchers, Retailer and soon. Confident to communicate professionally wrt speaking, writing and mannerism. Learn leadership skills and demonstrate ability to lead as well as work as effective teams
<b>CO2</b>	<b>INSTORE CASHIERING AND MERCHANDISING OPERATIONS</b>	How the role of cashier in a retail is playing a vital role, How to identify key Cashiering SOPs which facilitate in cash management, Explain how the various types of thefts and frauds in retail stores ,Selecting the appropriate measures of preventing thefts and frauds, way to incorporate the various anti-theft security systems
<b>CO3</b>	<b>MANAGERIAL ECONOMICS</b>	To increase students understanding of economic way of thinking and analyzing to business decision making problems ▪To develop students critical thinking skills and analytical abilities is resolving business problems by employing various tools and techniques of economics ▪To make students understand the rigors of various economic models and their applications in business decisions.▪ To make students understand how economic variables are interpreted, analyzed through the use of various tools and techniques
<b>BBA(RETAIL OPERATIONS) II YEAR&amp; I-SEM</b>		
<b>CO1</b>	<b>TEAM MANAGEMENT-1</b>	Describe the roles and responsibilities of the team leader. Explain the concepts and principles of managing and leading business teams. Organize and manage business teams. Consider the issues that impact members of a business team. Motivate and inspire team members. Resolve team conflict. Identify social, cultural and religious issues that impact business team members. Explore the implications of managing a virtual team.

<b>CO2</b>	<b>PERSONALITY DEVELOPMENT</b>	The student will be able to understand, analyse develop and exhibit accurate sense of self. Think critically. Demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment. Learn to balance confidence with humility and overcome problems associated with personality.
<b>CO3</b>	<b>BASIC QUALITY MANAGEMENT</b>	To realize the importance of significance of quality, Manage quality improvement teams Identify requirements of quality improvement programs
<b>CO4</b>	<b>ENTERPRISE RESOURCE PLANNING</b>	Demonstrate a good understanding of the basic issues in ERP systems .Analyse the strategic options for ERP identification and adoption. Design the ERP implementation strategies Understand the need of Business Systems and Processes through strategic analysis of ERP systems
<b>CO5</b>	<b>SALESMANAGEMENT</b>	Explain the basic principles of sales management; demonstrate an understanding of the role of the sales force as a part of the marketing mix;applyina competent manner sales management tools such as sales forecasting, sales compensation methods, sales budgeting, sales reports, routings, quotas, sales analysis, and evaluation of performance by means of a team project that creates a sales force plan. Understand the role of the function of sales management in the corporate structure.
<b>CO6</b>	<b>CUSTOMER RELATIONSHIP MANAGEMENT</b>	Cultivate the effective and efficient customer relationship ability. Able to manage CRM marketing in order to leverage CRM technology. Understand the needs in adoption of CRM in the tourism industry Students are able to analyse how to develop customer relationship based on the customer expectations Students are trained in of communication in the successful handling of customers Get to know about the various types of customers and their preferences and accordingly able to plan for the quality services Familiarizes the students on different classification of services and how to improve the service quality
<b>BBA(RETAIL OPERATIONS) IIEAR&amp; II-SEM</b>		

CO1	STORE OPERATIONS MANAGEMENT	Identify the importance of the Store Operations division Explain the structure of retailers' Store Operations divisions Identify how a Store Operations department's performance is measured Summarize the day-to-day tactical responsibilities of field-based Store Operations teams Describe the key processes in Store Operations that are managed by headquarters -space management, store administration and physical maintenance, loss prevention and human resources.
CO2	FUNDAMENTALS OFFINANCIAL AND COST ACCOUNTING	Understand the four frameworks of accounting and various accounting concepts and conventions Understand how to distinguish Capital and Revenue Transitions Develop an idea about the Accounting Cycle and its various stages Learn about the recording of transactions in Journal and posting them to Ledgers Learn the preparation of Cash Book, Bank Book and Bank Reconciliation Statement Understand the use of Trial Balance and its preparation methodology Learn how adjustments and rectification entries are passed before finalization of accounts Learn accounting for Depreciation and Provision for Doubtful Debt
CO3	TEAM MANAGEMENT-2	Learning different management styles Setting team goals Working in project mode Using collective intelligence Communicating effectively Leading team meetings Supporting teams through change Be coming a coaching manager Making effective decisions Being persuasive in management situations
CO4	BUSINESS CORRESPONDENCE & COMMUNICATION	To understand the different aspects of communication using the four macro skills – LSRW (Listening, Speaking, Reading, Writing), Ide Develop a resume for one self Ability to handle the interview process confidently, Common Errors and Rectify Them
CO5	FMCG/FMCDSALES AND DISTRIBUTION	Understanding of the various roles, responsibilities and policies of sales function Ability to design and implement various channel strategies Overview the issues of power and conflict in the organization Understanding to manage, motivate and lead sales force Framing policies and plan for sales organization and channels
CO6	NON-STORERETAILING	Explain the concept of non store retailing; identify the different types of non store retail formats; understand the functions of non store retailers; and examine the impact of non store retailing on other retail formats.
CO7	START UP MANAGEMENT	Entrepreneurship and Innovation minors will be able to sell themselves and their ideas. or a land visual presentation skills and establish a foundation of confidence in the skills necessary to cause others to act.

## DEPARTMENT OF PHYSICS

Sl.NO	PAPER	Number	Course outcome
1	MECHANICS	CO1	To understand the uses of vector calculus in the field of physics by studying Gauss's divergence theorem, Stoke's theorem & Green's theorem.
		CO2	To know about concepts of mechanics of particles & Rigid bodies.
		CO3	To gain knowledge on concepts of central forces
		CO4	To gain knowledge of relativity, Galilean & Lorentz transformations, concept of four vector formalism.
2	WAVES AND OSCILLATIONS	CO1	To acquire the knowledge off fundamentals of vibrations, Simple Harmonic Oscillator- equation & it's solution, Lissajous figures etc.
		CO2	To Know the concept and applications of Damped Oscillator and coupled oscillator.
		CO3	To gain the knowledge of vibration son strings, overtones, energy transport, transverse impedance.
		CO4	To understand the concepts of vibrations of bars.
3	THERMAL PHYSICS	CO1	To understand the concepts of Kinetic Theory Gases, Transport phenomena, basic laws of the rmodynamics.
		CO2	To acquire the knowledge of the rmodynamic potentials and Maxwell' sequations, concepts of low temperature physics.
		CO3	To acquire the knowledge of the Quantum theory of Radiation, pyroheliometers.
		CO4	To understand the concepts of Statistical Mechanics, Maxwell-Boltzmann, Bose-Einstein ,Fermi- Dirac Statistics.
4	OPTICS	CO1	To understand the concepts of Interference of Light by studying Interference phenomena.
		CO2	To acquire the knowledge of concepts of Diffraction phenomena.
		CO3	To understand the concepts of Polarization of light.
		CO4	To gain the knowledge of the concepts of Aberrations.

5	ELECTROMAGNETISM	CO1	To have the knowledge of concepts of electric field, electric flux, Gauss's law and its applications, concept of electric potential etc.
		CO2	To know the concepts of magnetic field and magnetic flux, Biot-Savart's law and its applications, Ampere's law and applications etc.
		CO3	To have the knowledge of Faraday's laws of electro magnetic Induction, Lenz's law, concepts of self induction and mutual induction.
		CO4	To understand the Maxwell's electromagnetic wave equations in free space & dielectric medium, Transverse nature of Electromagnetic waves. Polarization of Electro magnetic waves etc.
6	SOLIDSTATE PHYSICS	CO1	To gain the knowledge on crystal structures and crystal systems, Lattice vibrations, theories of specific heat of solids.
		CO2	To know about concepts of magnetic properties of matter and dielectric properties of solids.
		CO3	To understand the concept of band theory of solids, classification of solids, Hall effect and its uses.
		CO4	To gain the knowledge on Lasers, construction, working principle and uses, concepts of Superconductivity and uses of superconductors.
7	MODERN PHYSICS	CO1	To acquire knowledge regarding the concept of black body radiation, photo electric effect, atomic spectra, Bohr's model and Sommerfeld's model.
		CO2	To know the concepts of dual nature of matter, matter waves, Heisenberg's uncertainty principle and applications.
		CO3	To Acquire the knowledge about concept of nucleus, nature of nuclear forces and nuclear models.
		CO4	To Know the concept of radioactive materials, half life, mean life, types of decay, nuclear reactions and elementary particles.
8	BASIC ELECTRONICS	CO1	To understand the concepts of Network elements and network theorems.
		CO2	To acquire the knowledge on Band theory of P-N junction diodes and uses of junction diode.
		CO3	To understand the concepts of bipolar junction transistor,

			Uses of BJTs.
		<b>CO4</b>	To Understand the concept of Binary number system, Decimal, Hexadecimal Number system, Boolean algebra, Logic gates , De-Morgan's theorems.
9	WAVES&OPTICS	<b>CO1</b>	To gain the knowledge of vibrations on strings, overtones, energy transport, transverse impedance. The concepts of vibrations of bars.
		<b>CO2</b>	To understand the concepts of Interference of Light by studying Interference phenomena.
		<b>CO3</b>	To acquire the knowledge of concepts of Diffraction phenomena.
		<b>CO4</b>	To understand the concepts of Polarization of light.
10	ELECTROMAGNETIC THEORY	<b>CO1</b>	To have the knowledge of concepts of electric field, electric flux, Gauss's law and it's applications, concept of electric potential etc.
		<b>CO2</b>	The know the concepts of magnetic field and magnetic flux, Biot-Savart's law and it's applications, Ampere's law and applications etc.
		<b>CO3</b>	To have the knowledge of Faraday's laws of electromagnetic Induction, Lenz's law, concepts of self induction and mutual induction. To understand the Maxwell's electro magnetic wave equations in free space & dielectric medium, Transverse nature of Electromagnetic waves. Polarization of Electromagnetic waves etc.
		<b>CO4</b>	To understand the concepts of varying currents, To understand the concepts of Network elements and network theorems.

**DEPARTMENT OF ELECTRONICS**

**Program objectives and Course out comes**

COURSE TITLE	COURSE CODE	COURSE OUTCOMES
Microcontrollers and Applications	BS605-ELE	<p><b>CO1:</b> To understand and analyze the basic architecture of microcontroller. Functioning of each pin of controller and on chip memory port organization</p> <p><b>CO2:</b> To understand in writing a program using various addressing modes and to know the accessing of memory using various instructions</p> <p><b>CO3:</b> To understand utilization of various addressing modes and instructions in writing programs</p> <p><b>CO4:</b> to understand the basic requirements for the interfacing of external devices and to develop program for embedded system applications</p>



## DEPARTMENT OF TELUGU

Sl.No	PAPER	Number	Course outcome
1	DHARMJUNIVAKCHATURYAM.	CO1	Mahabharata visheshalu
		CO2	Tikkana naakeeyata,
		CO3	Parichina Telugu padabandalu
		CO4	Parichina kavitvam
2	GUNANIDHIKATHA.	CO1	Sreenadhuni kavitvam
		CO2	Puruniprdhanyata
		CO3	Vidyaradhanyata
		CO4	Chatuvulu
3	NARASIHASATAKAM	CO1	Satakam viseshaalu
		CO2	Dhariansalu
		CO3	Neeti visheshalu
		CO4	Bhakthi visheshalu
4	ARDHARATRI ARUNODAYA	CO1	Vachana kavitvamvisheshalu
		CO2	Telagana samajikamsalu
		CO3	Naijam palana
		CO4	Rajakar laduscharyalu
5	NIVURUTOLAGINANI PPU	CO1	Kathasahityam visheshalu
		CO2	Patrow chityam
		CO3	Atmavisvasam,pattudala

		<b>CO4</b>	Jrutagyatabhavam
6	CHALICHEEMALU	<b>CO1</b>	Nataka visheshalu
		<b>CO2</b>	Gramarajikeeyalu
		<b>CO3</b>	Devalayamaastulu
		<b>CO4</b>	Gramasarpanchadhikara durviniyogam.
7	ALANKARALU CHANDASSU	<b>CO1</b>	Sabdalankara visheshalu
		<b>CO2</b>	Sabdalankararadhanyata
		<b>CO3</b>	Parichinachado visheshalu
		<b>CO4</b>	Aadhunik ageyachandassu, mutyalasaarlu.

## DEPARTMEN OF ZOOLOGY

Sl.No	PAPER	NUMBER	COURSEOUTCOME
1	ANIMAL DIVERSITY- INVERTEBRATES (PROTOZOA,PORIF ERA)	<b>CO1</b>	To acquire the knowledge of microscopic living organisms General charecters & classification of the animals, and the comparision, origin and evolution of cell and a cellular
		<b>CO2</b>	To the knowledge acquire about the invertebrates Diseases (viral, bacterial fungal helmenths protozoal)
		<b>CO3</b>	To the know cells and spicules coral, and coral reef formation bio-indicators vectors regeneration and symmetry
		<b>CO4</b>	To acquire the knowledge of Economic importance of invertebrates
2	ANIMALPHYSIOLO GYAND ANIMAL	<b>CO1</b>	To know the Homeo stasis and Osmo regulation Hormone regulation of blood glucose levels in human being
		<b>CO2</b>	To gain knowledge about Digestive, Respiratory , Circulaory Nervous &Reproductive ..system of vertebrates

	BEHAVIOUR	CO3	To know the Endocrine system, glands-Structure Secretions and functions
		CO4	To know the Animal behavior Learning & memory biological rhythms
3	PHYSIOLOGY AND BIOCHEMISTRY	CO1	To know the Homeostasis and Osmoregulation Hormone regulation of blood glucose levels in human being marine and fresh water Animals
		CO2	To gain knowledge about Digestive, Respiratory, Circulatory Nervous & Reproductive ..system of vertebrates
		CO3	To know about Recombinant DNA technology, stem cells types and their applications
		CO4	To know the Endocrine system, glands-Structure Secretions and functions
4	APPLIED ZOOLOGY	CO1	To know the types of fisheries, culture, Induced breeding, transportation of fish & prawn
		CO2	To know the life cycle of Bombyx mori, Structure of gland & secretion of silk
		CO3	To know the Apiculture beekeeping equipment. Methods of extraction of Honey
		CO4	To know the classification of owls based on their use- Broilers and Commercial layers.
5	ANIMAL DIVERSITY- VERTEBRATES (HEMICHORDATA, PROTOCHORDATA & CEPHALOCHORDATE)	CO1	To acquire the knowledge of General characters & classification of the animals, and the comparison origin and evolution vertebrates
		CO2	To know the General characters & classification of vertebrates
		CO3	To gain knowledge about Digestive, Respiratory, Circulatory Nervous & Reproductive system of vertebrates
		CO4	To acquire the knowledge of Economic importance of vertebrates
	CELL BIOLOGY,	CO1	To gain knowledge regarding the unit of life that is cell, cell structure types, cell functions, Various organelles of the cell and their function's structure

6	GENETICS AND DEVELOPMENTAL BIOLOGY	CO2	To gain knowledge about DNA, RNA –types structure & functions which is very useful at molecular level of genes in various aspects of life quality of genetical characters and forensic method of the living organisms
		CO3	To Acquire the knowledge about Genetical aspects
		CO4	To acquire the knowledge of the development of male and female(oogenesis and spermatogenesis) reproductive organs employ the fertilization methods to develop with new genetically combinations leading to new varieties
7	IMMUNOLOGY AND ANIMAL BIOTECHNOLOGY	CO1	To know about immune system-types structure , function &Antigen-anti body reactions.
		CO2	
		CO3	To know about Cloning, cloning methods, vectors
		CO4	To know the Vaccines-types and their reactions To know about Recombinant DNA technology, stemcells types and their applications
8	AQUATIC BIOLOGY	CO1	To acquire the knowledge off resh water& marain water
		CO2	To acquire the knowledge of Origin and classification of lakes. Lakeasan Ecosystem& Lake morphometry
		CO3	To know the oceanic pelagic zone, marinebenthic zone.
		CO4	To know the Aquatic pollutions alinity and density of sea water,

## DEPARTMENT OF COMPUTERS

Sl.No.	Course Code	CourseName	CourseOutcomes
1	CSC 111	COMPUTER FUNDAMENTALS ANDPHOTOSHOP	<p><b>CO-1:</b> The student is able to explore the basic knowledge of computer hardware and software.</p> <p><b>CO-2:</b> The student is able to learn and work on adobe Photoshop applications.</p> <p><b>CO-3:</b> The student is able to create and edit photo albums.</p> <p><b>CO-4:</b> The student is able to sign and edit Banners and visiting cards etc..</p>
2	CSC112	PROGRAMMING IN C	<p><b>CO-1.</b> Appreciate and understand the working of a digital computer</p> <p><b>CO-2.</b> Analyse a given problem and develop an algorithm to solve the problem</p> <p><b>CO-3.</b> Use the 'C' language constructs in the right way</p> <p><b>CO-4.</b> Design, develop and test programs written in 'C'</p>
3	CSC103	OBJECTORIENTED PROGRAMMING USING JAVA	<p><b>CO-1.</b> Understand the concept and underlying principles of Object-Oriented Programming</p> <p><b>CO-2.</b> Understand how object-oriented concepts are incorporated into the Java programming language</p> <p><b>CO-3.</b> Develop problem-solving and programming skills using OOP concept</p> <p><b>CO-4.</b> Become familiar with the fundamentals and acquire programming skills in the Java language.</p>

4	CSC104	DATA STRUCTURES	<p><b>CO-1.</b>student knows how arrays, records, linked structures, stacks, queues, trees ,and graphs are represented in memory and its applications</p> <p><b>CO-2.</b> Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs</p> <p><b>CO-3.</b>Compare and contrast the benefits of dynamic and static data structures implementations</p> <p><b>CO-4.</b>Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.</p>
			<p><b>CO-5.</b>Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.</p>
5	CSC105	DATABASE MANAGEMENT SYSTEMS	<p><b>CO-1.</b>Student knows database structure and its design</p> <p><b>CO-2.</b> Students are able to understand Different data models used for database design</p> <p><b>CO-3.</b> Students are able to understand database transactions and data recovery</p> <p><b>CO-4.</b>StudentscanuseDML,DDL,DCL commands to manipulate data in the database</p>
6	CSC121	SOFTWARE ENGINEERING	<p><b>CO-1.</b>Ability to gather and specify requirements of the software projects.</p> <p><b>CO-2.</b>Ability to analyses oft ware requirements with existing tools</p> <p><b>CO-3.</b>Ableto differentiate different testing methodologies and apply the basic project management practices in real life projects</p> <p><b>CO-4.</b>Ability to work in a team as well as independently on software projects</p>

7	CSC115	OPERATING SYSTEMS	<p><b>CO-1.</b>Analyse the concepts of processes in operating system and illustration of the scheduling of process or for a given problem instance.</p> <p><b>CO-2.</b>Identify the deadlock situation and provide appropriate solution so that protection and security of the operating system is also maintained.</p> <p><b>CO-3.</b> Analyse memory management techniques, concepts of virtual memory and disk scheduling.</p> <p><b>CO-4.</b> Understand the implementation of file systems and directories along with the interfacing of IO devices with the operating system.</p>
8	CSC122	COMPUTER NETWORKS	<p><b>CO-1.</b>Identify the different components in a Communication System and their respective roles.</p> <p><b>CO-2.</b>Describe the technical issues related to the local Area Networks</p> <p><b>CO-3.</b>Knows about different topologies and network types</p> <p><b>CO-4.</b>Identify the common technologies available in establishing LAN infrastructure.</p>

9	CSC106	GUI PROGRAMMING	<p><b>CO1.</b>Design and develop Windows application using different Windows technologies that use a variety of GUI controls and classes to fulfill specific user requirements.</p> <p><b>CO2.</b>Explain how event driven applications use the reading to perform time-consuming operations.</p> <p><b>CO3.</b>Demonstrate how to use specific features of the GUI programming language to write object oriented programs and handle run-time errors.</p> <p><b>CO4.</b>Explain in a public setting how user interfaces should be designed to accommodate human physiology and limitations.</p>
10	CSC116	WEB TECHNOLOGIES	<p><b>CO-1.</b>To understand the web architecture and web services.</p> <p><b>CO-2.</b>To practice latest web technologies and tools by conducting experiments.</p> <p><b>CO-3.</b>To design interactive web pages using HTML and Style sheets.</p> <p><b>CO-4.</b>To study the framework and building blocks of .NET Integrated Development Environment.</p> <p><b>CO-5.</b>To provide solutions by identifying and formulating IT related problems.</p>
11	CSC118	FOUNDATION OF DATA SCIENCE	<p><b>CO-1.</b>Able to apply fundamental algorithmic ideas to process data.</p> <p><b>CO-2.</b>Learn to apply hypotheses and data into actionable predictions.</p> <p><b>CO-3.</b>Document and transfer the results and effectively communicate the findings using visualization techniques.</p>



12	CSC119	BIGDATA	<p><b>CO-1.</b>Learn tips and tricks for Big Data use cases and solutions.</p> <p><b>CO-2.</b>Learn to build and maintain reliable, scalable, distributed systems with Apache Hadoop.</p> <p><b>CO-1.</b>Able to apply Hadoop ecosystem components.</p>
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## DEPARTMENT OF ENGLISH

### DEPARTMENT OF ENGLISH-COURSE OUT COMES

S. No.	Semester	Course	Credits	Course Outcome
1	I	English for Advancement	4	<ul style="list-style-type: none"> <li>➤ Students can enjoy all the essays and improves literary skills</li> <li>➤ Students can learn all the grammar skills</li> </ul>
2	II	English for Advancement	4	<ul style="list-style-type: none"> <li>➤ Students will be able to improve comprehensive skills as well as advanced grammar skills</li> <li>➤ Students can understand the values of literature</li> </ul>
3	III	English for Excellence	3	<ul style="list-style-type: none"> <li>➤ The text contains Gender studies focusing on achieving gender equality, gender roles and violence against women.</li> <li>➤ Students will also be able to make use of grammar and soft skills when they face competitive exams</li> </ul>
4	IV	English for Excellence	3	<ul style="list-style-type: none"> <li>➤ The text contains issues of environmental pollution such as renewable and non-renewable resources and its uses, ecosystem and conservation of Biodiversity</li> <li>➤ Students can improve reported speech, conditionals, common errors, collocations, etc.</li> </ul>

5	V	Communication Skills English through Human Values and Ethics	3	<ul style="list-style-type: none"> <li>➤ The text contains an anthology of literary pieces of prose and poetry focusing on human values and ethics</li> <li>➤ The students will be able to enhance their writing skills through note- making, paragraph writing and speaking skills</li> </ul>
6	VI	Communication Skills English for Employability Skills	3	<ul style="list-style-type: none"> <li>➤ The text contains an anthology of literary pieces of prose and poetry focusing on human values and ethics</li> <li>➤ The students will be able to enhance their writing skills through letter Writing ,email writing etc.</li> </ul>

Course Out comes (B.Sc.,B.Com) Department of  
Hindi

	COURSEOUTCOME		
	PAPER	Number	Course outcome
1	HINDIPAPER-I	CO1	To develop Hindi Reading & Linguistic Comprehension of Students
		CO2	To understand the types of Hindi Short Story articles
		CO3	To understand the Biography of Writers
		CO4	To able to understand the importance of Grammar, Translation and writing skills.
2	HINDIPAPER-II	CO1	To develop Hindi Reading & Linguistic Comprehension of Students
		CO2	To understand the types of Hindi Short Story articles
		CO3	To understand the Biography of Writers.
		CO4	To able to under stand the importance of Grammar and letter writing.
3	HINDIPAPER-III	CO1	To develop Hindi Reading & Linguistic Comprehension of Students
		CO2	To understand about Hindi Literature.
		CO3	To understand about Hindi Literature and about writers & their life history.
		CO4	To understand about personalities of Social, political and literature .
		CO5	To able to understand the importance of Grammar and Essay writing.
4	HINDIPAPER-IV	CO1	To aquire knowledge about the poetry of Meerabai, Rahim & Bihari.
		CO2	To understand about Hindi Literature &writers.
		CO3	To understand the history of Hindi Literature& Biography of Writers.
		CO4	To acquire the knowledge about life history of Hindi poets like Meerabai,Rahim,Bihari,Premchand,Nirala, Mahaveerprasad Dwivedi,Harivansh Rai Bachhan etc.
		CO5	To able to understand the translation from Telegu, English to Hindi and writing skills.

# DEPARTMENT OF MATHEMATICS

## COURSE OUT COMES

### PAPER-I:DIFFERENTIALANDINTEGRALCALCULUS

Sl. No.	Course Code	Course Name	Course Outcomes
1	MAT1	DIFFERENTIAL ANDINTEGRAL CALCULUS	<ol style="list-style-type: none"><li>1. To enable the students to solve mathematical problems of daily life.We have to select the content and methods of teaching so that the students are able to make use of their learning of mathematics in daily life.</li><li>2. To enable the students to understand the contribution of mathematics to the development of culture and civilization.</li><li>3. To develop thinking and reasoning power of the students.</li><li>4. To prepare a sound foundation needed for various vocations.Mathematics is needed in various professions such as those of engineers, bankers, scientists, accountants, statisticians etc.</li><li>5. To prepare the child for further learning in mathematics and the related fields .School mathematics should also aim at preparing him for higher learning in mathematics.</li><li>6. To give the child an insight into the relationship of different topics and branches of the subject.</li><li>7. To enable the child to understand popular literature. He should be so prepared</li></ol>

			<p>that he finds no handicap in understanding mathematical terms and concepts used in various journals, magazines ,newspapers etc.</p> <p>8. To teach the child the art of economic and creative living.</p> <p>9. To develop in the child rational and scientific attitude towards life.</p>
2	MAT2	DIFFERENTIAL EQUATIONS	<p>1. To analyze real world scenarios to recognize when ordinary differential equations (ODEs) or systems of ODEs are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches, judge if the results are reasonable, and then interpret and clearly communicate the results.</p> <p>2. To recognize ODEs and system of ODEs concepts that are encountered in the real world, understand and be able to communicate the underlying mathematics involved to help another person gain insight into the situation.</p> <p>3. To work with ODEs and systems of ODEs in various situations and use correct mathematical terminology, notation, and symbolic processes in order to engage in work, study, and conversation on topics involving ODEs and systems of ODE swith</p>

			Colleagues in the field of mathematics, science or engineering.
3	MAT3	REALANALYSIS	<p>Upon successful completion of Real Analysis, students will be able to</p> <ol style="list-style-type: none"> <li>1. Describe the real line as a complete, ordered field.</li> <li>2. Determine the basic topological properties of subsets of the real numbers.</li> <li>3. Use the definitions of convergence as they apply to sequences, series, and functions.</li> <li>4. Determine the continuity, differentiability, and integrability of functions defined on subsets of the real line.</li> <li>5. Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis.</li> <li>6. Produce rigorous proofs of results that arise in the context of real analysis.</li> </ol>
4	MAT4	ABSTRACT ALGEBRA	<p>Upon successful completion of Abstract Algebra, students will be able to</p> <ol style="list-style-type: none"> <li>1. Assess properties implied by the Definitions of groups and rings.</li> <li>2. Use various canonical types of groups (including cyclic groups and groups of permutations) and canonical types of rings (including polynomial rings and</li> </ol>

			<p>Modular rings).</p> <ol style="list-style-type: none"> <li>3. Analyze and demonstrate examples of subgroups, normal subgroups and quotient groups.</li> <li>4. Analyze and demonstrate examples of ideals and quotient rings.</li> <li>5. Use the concepts of isomorphism and homomorphism for groups and rings.</li> </ol>
5	MAT5	LINEAR ALGEBRA	<p>Upon successful completion of Linear Algebra, students will be able to</p> <ol style="list-style-type: none"> <li>1. Solve systems of linear equations</li> <li>2. Analyze vectors in <math>\mathbb{R}^n</math> geometrically and algebraically.</li> <li>3. Recognize the concept of the terms span, linear independence, basis, and Dimension, and apply these concepts to various vector spaces and subspaces.</li> <li>4. Use matrix algebra and the related Matrices to linear transformations, compute and use determinants.</li> <li>5. Compute and use Eigen vectors and Eigen values.</li> <li>6. Determine and use orthogonality.</li> </ol>
			<p>After studying this course students should be able</p> <ol style="list-style-type: none"> <li>1. To understand geometrical terminology for angles, triangles,</li> </ol>

6	MAT6	SOLID GEOMETRY	<p>Quadric laterals and circles.</p> <ol style="list-style-type: none"> <li>To measure angles using a protractor.</li> <li>To use geometrical results to determine unknown angles.</li> <li>To recognise line and rotational symmetries.</li> <li>To find the areas of triangles, quadrilaterals and circles and shapes.</li> </ol>
7	MAT7	NUMERICAL ANALYSIS	<p>Upon successful completion of Numerical Analysis, a student will be able to</p> <ol style="list-style-type: none"> <li>Derive numerical methods for approximating the solution of problems of continuous mathematics.</li> <li>Analyze the error incumbent in any such numerical approximation.</li> <li>Implement a variety of numerical algorithms using appropriate technology.</li> <li>Compare the viability of different approaches to the numerical solution of problems arising in roots of solution of non- linear equations, interpolation and approximation, numerical differentiation and integration, solution of linear systems.</li> </ol>
			<p>Upon successful completion of Multiple Integrals &amp; Vector Calculus, a student will be compute and analyze</p>



8	MAT8	MULTIPLE INTEGRALSAND VECTOR CALCULUS	<p>1. The vector-valued functions of a real variable and their curves and in turn the geometry of such curves including curvature, torsion and the Frenet-Serret frame and intrinsic geometry</p> <p>2. Scalar and vector valued functions of 2 and 3 variables and surfaces, and in turn the geometry of surfaces</p> <p>3. Gradient vector fields and constructing potentials, Integral curves of vector fields and solving differential equations to find such curves</p> <p>4. The differential ideas of divergence, curl, and the Laplacian along with their physical interpretations, using differential forms or tensors to represent derivative operations.</p> <p>5. The integral ideas of the functions defined including line, surface and volume integrals - both derivation and calculation in rectangular, cylindrical and spherical coordinate systems and understand the proofs of each instance of the fundamental theorem of calculus.</p> <p>6. Step in put functions using the Laplace transform</p>
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### Department of Business Management

SL.NO	YEAR /SEMESTER	SUBJECT/COURSE	COURSE OUTCOMES
1	MBAI/I SEM	Management and Organization Theory	CO1: To introduce the concepts of Organisation and Management and understanding of different principles, functions and process of management.
		Accounting for Managers	CO2: To provide basic understanding about Accounting process and to expose latest trends in Corporate Accounting practices
		Statistics for Managers	CO3: To familiarize the students with the statistical techniques popularly used in managerial Decision making.
		Information Technology For Managers	CO4: To expose the students the latest trends in Information Technology
		Marketing Management	CO5: To understand the marketing concepts and major decisions involved in marketing management.
		Business Environment	CO6: To understand the nature of business and The influence of the environment.
		Managerial Economics	CO7: To highlight the significance of Managerial Economics in Business Management and Managerial Decision making.
2.	MBA-I/II Semester	Human Resource Management	CO1: To understand about the functioning of the Human resource function in an Organization
		Financial Management	CO2: To ensure broad understanding of the concepts, theories, and techniques and functions of Finance in management.
		Management Accounting	CO3: To understand the various concepts of cost And management account which are useful for decision making.
		Operations Research	CO4: To understand the various techniques used In the research operations in an Organization.
		Business Research Methodology	CO5: To understand the methods of research with an emphasis on various stages that are necessary To enable well informed decision making.
		Business Ethics	CO6: To understand the ethical issues pertaining To business and implementation of Business Ethics for Sustainable Business.
		Customer Relationship Management	CO7: To understand the various methods and measure to maintain better customer relationships And practice the best methods for effective relationship with customers.
		Organization Behavior	CO1: To understand about the concepts of Organization related to individual and Group behavior
		Strategic Management	CO2: To understand the importance of Strategic Management in decision-making process and also
			to study about various Corporate Level competitive strategies.

3	MBA- II/III Semester	Managerial Communication	CO3: To prepare the students and understand the nature and importance of different forms of communication. It also aims to develop Communication skills for organizing their jobs.
		Business Law	CO4: To understand the basic rules of Agreements and Contracts along with the basic Rules of Offer, Acceptance, Consideration, Capacity/Competency to contract & rules governing Consideration in The Indian Contract Act, 1872.
		Human Resource Development	CO5: The kind of work done or initiatives taken into developing human resources may vary from organization to organization depending on its need, nature, size etc.
		Labor Laws	CO6: To elaborate the concept of Industrial Relations. The students should be able to illustrate The role of trade union in the industrial setup
		Organisation Development	CO7: To focus on improving an organization's capability through the alignment of strategy, structure, people, rewards, systems, metrics, and management processes.
		Consumer Behaviour	CO5: To have an understanding of the concepts and applications of consumer behavior, understanding of group influences and understand consumer behavior in cultural and contextual environment.
		Advertising & Sales Management	CO6: To understand outline of key marketing concepts and its application to different markets and identify factors and processes essential for Designing marketing strategy
		Product & Brand Management	CO7: To understand the Customer Based Brand Equity model in order to build a superior brand and the importance of the brand management Processes to take effective branding decisions.
		Security Analysis & Portfolio Management	CO5: To provide theoretical and practical background in the field of investment.
		Indian Financial System	CO6: To determine the need of financial system and describe how and why financial systems work.
		Corporate Taxation & Planning	CO7: To explain different types of incomes and their taxability and expenses and their deductibility.
		Operations Management	CO1: To understand the input-process-output framework, the extensions of it, and apply those to a wide range of operations examine the types of transformation processes occurring within operations.

4	MBA- II/IV Semester	International Business	CO2: To focus on the overview of the unique problems faced by firms engaging in international activities; the importance of understanding the foreign economic, social, political, cultural, and legal environment.
		Creativity and Innovations	CO3: To Understand different perspectives on why creativity matters and consider cognitive aspects of creativity and how personality and individual differences might contribute and explore ways in which individuals can enhance their own creative potential.
		Management information system	CO4:To analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions and design, implement and evaluate a computing- based solution to meet a given set of computing requirements in the context of the program's discipline.
		Management of Industrial Relations	CO5:Tofamiliarizewiththeroleofmanagement and unions in the promotions of industrial Relations and examine the labor relation issues and its management.
		Compensation Management	CO6: To recognize how pay decisions help the organization achieve a competitive advantage and analyze, integrate, and apply the knowledge to Solve compensation related problems in organizations.
		Strategic Human Resource Management	CO7:Tounderstandthe role of strategic human resources in the organization, the business skills Necessary to contribute to the achievement of organizational goals.
		Services Marketing	CO5:TounderstandabouttheimportanceofServiceMarketin gandUnderstandtheSevenP's Of Services Marketing.
		Rural Marketing	CO6:Tounderstandtheneedandimportanceof Rural Marketing ,Agricultural Marketing and Rural Marketing Mix Strategies.
		Supply Chain Management	CO7:To understand the fundamentals, elements, functions of supply chain, techniques of Invent ory management, warehousing and logistics Management.
		International financial Management	CO5: To understand the importance of International Financial System, Foreign Exchange Market, International Monetary System and Financial Management of Multinational Firm.
		Strategic Financial Management	CO6:TounderstandabouttheNeedoffinancial Planning, Estimating of Financial Requirements,
		Management	Corporate Acquisitions ,Capital Valuation and Corporate Restructuring and reengineering

		Financial Derivatives	CO7: To understand about the evolution and different types of Derivatives Market. Types of Contracts, Valuation of Options and Financial Derivative Market in India.
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subject	Number	Course Outcomes
C and Data Structures	CO1	Solve problems using various data structures like line a stack, queue, tress and graphs
Operating System	CO2	Understand Operating System concepts of Operating S
Java Programming	CO3	Develop reusable programs using the concepts of in he polymorphism, interfaces and packages
Computer Networks	CO4	Emphasizes basic principles and topics off undamenta importance concerning the technology
Probability and Statistical Methods	CO5	Calculate the expected value of a random variable. Calculate the expected value of a function of a rando Express the variance of a random variable
C and DS Lab	CO6	Develop simple real-time applications searching techn get familiarity of the programming environment.
OS Lab	CO7	Implements various scheduling algorithms available
Java Programming Lab	CO8	Design event driven GUI and web related applications which mimic the real word scenarios
Python Programming	CO1	Know the usage of Functions, Modules ,Packages and Files in Python
Database Management Systems	CO2	Understand about the database management system, design,
Software Engineering	CO3	Understanding of software Functional and non-functio
Cryptography and Network Security	CO4	To understand various block cipher and stream cipher symmetric ,public key cryptosystems
Principles and Practice of Management	CO5	To understand about the importance of management a of management in detail
Python Programming lab	CO6	Perform number crunching using NumPy and Analyse
DBMS Lab	CO7	Implements PL/SQL sub programming concepts such procedures, functions, triggers ,packages etc
Software Engineering Lab	CO8	Understanding software testing, testing strategies for

Database Management Systems	CO1	Understands about the database management system, design,
Data Communication and Networks	CO2	Understands OSI architecture for transmitting the data
Software Engineering	CO3	Understanding of software Functional and non-functio
Principles and Practices of Management	CO4	To enable them to analyze and understand the environ of the organization.
.NET Programming	CO5	– Emphasizes basic principles and topics Visual Basic .NET- Modules- variables- error handling- Arrays ,lists-collections–Files-directories-streams Object serialization –Regular expressions– Threading OBJECT ORIENTED PROGRAMMING concepts
Database Management Systems Laboratory	CO6	Implements all kinds of language queries one m pand
Software Engineering Laboratory	CO7	Understanding software testing, testing strategies for
.NET Programming Laboratory	CO8	Implements the Features of ADO.NET Architecture o ADO. NET and creates Forms and Web Forms. and d Data base access in Web Applications like Web Servi Deploying applications.
Data Mining	CO1	understanding Basic Concepts of frequent patterns- Mining methods, A priori and FP- Growth, Association Classification and Prediction
Unix Network Programming	CO2	Inter-process Communication: Introduction, File and Record Locking ,Simple Client-server Pipes FIFO's, Streams and Messages ,Name Spaces, System Message Queues, Semaphores ,Shared Memory ,Sock
Web Technologies	CO3	Develop various types of servlet applications to imple tracking ,dynamic servlets
Mobile Communications	CO4	Understand sentities and terminology,IP packet deliv agent advertisement and DHCP protocol
Accountancy and Financial Management	CO5	Analyse and solve valuation and investment

		proble
Unix Network Programming Laboratory	CO6	Implements various system calls and Vi Editing tool
Web Technologies Laboratory	CO7	Develop Web based applications using servlets and JS
Data Mining Laboratory	CO8	Uses We ka tools implement various cluster analysis to

Artificial Intelligence	CO1	Basic understanding of AI, history and the technologic current machines. It talks about the different applicati Gives importance to knowledge representation techni
Cryptography and Network Security	CO2	Understanding of Security Services ,Security and mech
Mobile Application Development	CO3	Develop JDBC application and performs various oper database
Elective- I Cloud Computing	CO4	Understanding Platform as a Service(PaaS) ,IaaS, Util Overview, Cloud Storage Providers.
Elective–IIE-Commerce	CO5	Explain the process that should be followed in buildin e-commerce presence. Procurement and supply chains e-commerce, security threats in e-commerce.
Mobile Application Development Laboratory	CO6	Understands Commands ,Items, and Event Processing User Interfaces, Display Class, Exception Handling . Screen Class, Alert Class, Clipping Regions ,Animatio
Cryptography and Network Security Laboratory	CO7	Creates Digital Signature, hash code using java application programming
Mini Project Laboratory	CO8	Develop a software product using the Agile method ol
MAJORPROJECT WORK	CO1	Students will be able to practice acquired knowledge chosen area of technology for project development.



## DEPARTMENT OF CROP PRODUCTION

S.No	PAPER	NUMBER	COURSEOUTCOME
01	<b>Semester -I</b> <b>TITLE:</b> <b>Fundamentals of Agronomy</b>	<b>CO1</b>	Develop the concept of Agronomy and Agriculture.
		<b>CO2</b>	Understand the tillage preparation methods and characters.
		<b>CO3</b>	Learn the concept of sowing methods and soil fertility and weed control.
		<b>CO4</b>	Know the irrigation management, manures and fertilizers, growth and development, harvesting maturity symptoms of crop.
02	<b>SEMESTER-II</b> <b>TITLE:</b> <b>SOIL AND WATER MANAGEMENT</b>	<b>CO1</b>	Know the development of soil profile, soil minerals and rocks, weathering of rocks.
		<b>CO2</b>	Learn the concept and importance of soil air, soil water, formation of humus, nutrient transport to plants.
		<b>CO3</b>	Know about fertilizers and INM, water resources in Telangana.
		<b>CO4</b>	Learn the water requirements, irrigation methods and quality of irrigation water.

03	<b>SEMESTER-III</b> <b>TITLE:</b> <b>PLANT PROTECTION</b> <b>(Entomology and Plant Pathology)</b>	<b>CO1</b>	Understand the fundamentals and principles of entomology and plant pathology.
		<b>CO2</b>	Know the IPM, recent methods of pest control, classification of insecta.
		<b>CO3</b>	Understand the classification of plant disease, phenomenon of infection, pathogenesis, and defense mechanism.
		<b>CO4</b>	Know the plant disease epidemiology in important field crops

04	<b>SEMESTER-IV</b>  <b>TITLE:</b>  <b>HORTICULTURE AND LANDSCAPE GARDENING)</b>	<b>CO1</b>	Know the horticulture and botanical classification of crops and soil, climatic features for growing.
		<b>CO2</b>	Understand the propagation methods, Green house, principles of pruning and training
		<b>CO3</b>	Learn the Flower bud differentiation, system of irrigation, fertilizer application..
		<b>CO4</b>	Know the cultivation of annuals, lawn maintenance, indoor gardening
05	<b>SEMESTER-V</b>  <b>TITLE:</b>  <b>WEED MANAGEMNT</b>	<b>CO1</b>	Know the harmful and beneficial effects of weeds. Classification and propagation of weed.
		<b>CO2</b>	Know the crop-weed competition-principles-factors, Allelopathy and methods of weed management.
		<b>CO3</b>	Know the chemical and biological methods of weed control, Herbicides, Nomenclature of herbicides.
		<b>CO4</b>	Understand the Herbicide resistance and management, Aquatic weeds and their management
06	<b>SEMESTER-VI</b>  <b>TITLE:</b>  <b>AGRICULTURAL FINANCE AND BUSINESS MANAGEMENT</b>	<b>CO1</b>	Know the credit and its control, finance in agriculture, principles of credit, added cost, added returns.
		<b>CO2</b>	Understand the qualification of a borrower, source of agricultural finance, co-operative credit.
		<b>CO3</b>	Know the Management and its functions. Human resources
		<b>CO4</b>	Know the planning, leadership, book- keeping and cash accounts

## **DEPARTMENT OF DAIRY SCIENCE**

### **DSC P 1 Dairy Husbandry – I**

#### **Course Outcomes:**

At the end of the course the students will

CO 1: Know the Types of cattle, buffalo, goat, Exotic, indigenous animals and its distribution.

CO2: Anatomy and development of udder, Lactogenesis, galactopoietics.

CO 3: Methods of milking, Economic traits, family pedigree, Body condition score system

CO 4: Inbreeding, out breeding, cross breeding, multiovulation, embryo transfer technique, cloning, transgenic animals.

### **DSC P 11 Dairy Husbandry – II**

#### **Course Outcomes:**

At the end of the course the students will know about

CO 1: Housing of dairy cattle, Drawing of layouts, criteria for site selection, water requirement

CO2: Symptoms and diseases of dairy animals.

CO 3: Management of different classes and Practices of dairy farm.

CO 4: Maintenance of high level of fertility and methods of determining reproductive efficiency.

### **DSC P 111 Dairy Cattle Nutrition**

#### **Course Outcomes:**

At the end of the course the students will know about

CO 1: Classification of feeds and fodders, importance of proteins, fats, carbohydrates in livestock feeding.

CO 2: Types of fodder varieties, grass and cultivation practices of fodder crops.

CO 3: Balanced rations and feeding practices of dairy cattle.

Co 4: Utilisation of agricultural and industrial by products for livestock.

**DSC P 1V**  
**Dairy Development & Cooperative Societies:**

**Course Outcomes:**

At the end of the course the students will know about

CO 1: Principles involved in dairying and systems of dairying.

CO2: Procurement, transport, pricing and marketing of milk.

CO3: Structure of dairy cooperatives objectives and functions.

CO 4:Dairy development programs, Economics of maintaining dairy farm and pricing the milk

**DSE 1 A**  
**Technology of Dairy Products – I**

**Course Outcomes:**

At the end of the course the students will know about

CO 1: Reception, storage, grading, sampling, testing, weighing, recording, clarification of milk.

CO2: Methods of pasteurization, sterilization of milk, standardization of milk.

CO3: packaging, Types of packaging, desirable characters, packing materials, methods of treatment of dairy waste.

CO4: Standards and methods of manufacturing types of milk, cream and types of cream separators.

**DSE 1 B**  
**Dairy Chemistry**

**Course Outcomes:**

At the end of the course the students will know about

CO 1: Composition of cow, buffalo, goat, sheep, human milk and colostrums.

CO2: Factors affecting composition and yield of milk.

CO 3 Physico-chemical properties of milk.

CO 4: Detection of adulterants of milk and FSSAI specifications for milk.

**DSE 11 A**  
**Technology of Dairy products-II**

**Course Outcomes:**

At the end of the course the students will know about

Co 1: PFA standards, classification, composition and manufacture of Butter, butter oil, cheese, cream

CO2: Types of condensed milk, standards, composition and methods of manufacture of milk powder.

CO3: Standards and manufacture of Indigenous milk products, khoa, channa, ghee, dahi and kulfi.

**DSE 11 B**  
**Dairy microbiology**

**Course Outcomes:**

At the end of the course the students will know about

CO1: Types of microorganisms present in milk.

CO 2: chemical changes, sources of contaminants of milk and their control.

CO 3: Microbiological examination of milk and milk borne diseases.

CO 4: Cleaning and sanitation of dairy equipment and personal cleaning

**DEPARTMENT OF FOOD SCIENCE AND QUALITY CONTROL**

**B.Sc. Food Science and Quality Control (Semester I)**

**FOOD CHEMISTRY & NUTRITION**

**Course Outcome:** By the end of the course

**CO 1:** Student will be able to understand the basic components of food and their importance.

**CO 2:** Understand the fundamental principles of biochemistry as they apply to food systems.

**CO 3:** Describe the chemical composition and structure of major food components .

**CO 4:** Analyze the biochemical reactions involved in food processing, preservation, and storage.

**CO 5:** Evaluate the role of enzymes in food systems and their impact on food quality and safety

## **B.Sc. Food Science and Quality Control (Semester II)**

### **FOOD MICROBIOLOGY, SANITATION AND HYGIENE**

#### **Course Outcome:**

- Acquire an elementary knowledge about micro-organism.
- To develop an understanding of the role of microorganisms in environment, Industry and in maintenance of health.
- Understand the importance of safe handling of food.

## **B.SC.FOODSCIENCEANDQUALITYCONTROL**

### **POST HARVEST TECHNOLOGYOF FIELD CROPS (SEMESTER III)**

#### **Course Outcome:**

- Students will be able to
- understand the importance of processing and preservation of horticultural crops
- Cereals, legumes and oil seeds.
- And also technology used in different milling industries.

## **B.SC. FOOD SCIENCE AND QUALITY CONTROL**

### **TECHNOLOGY OF ANIMAL FOODS SEMESTER-IV**

#### **Course Outcome:**

- Student will be able to understand
- The importance of meat, preservation and processing into different products.
- About the processing of different dairy products.
- About the importance meat, processing and preservation of meat by various techniques
- About processing of sea foods

## **B.Sc FOOD SCIENCE & QUALITY CONTROL**

### **FERMENTED FOODS AND BEVERAGES TECHNOLOGY SEMESTER-V PAPER-I**

#### **Course Outcome:**

- Student will be able to
- Understand the importance of fermentation and different micro organisms associated with foods
- Will understand principles of food fermentation technology
- Study the types of starters used in Food Industry
- Study the production of various fermented foods alcoholic and non-alcoholic beverages.

**B.SC.FOOD SCIENCE AND QUALITY CONTROL**  
**FOODSAFETY, QUALITY CONTROL AND SENSORY EVALUATION**  
**SEMESTER VI PAPER-I**

**Course Outcomes:**

**Upon completion of this course, the student will be able to understand**

- The principles and methods of Quality Control and Assurance in foods,
- Understand the principles of sensory evaluation, understand the principles of HACCP in different food processing.(Skills)
- carry out sensory evaluation of a newly developed product.
- identify hazards and critical control points of different existing production processes.

**B.SC.FOODS CIENCE AND QUALITY CONTROL**  
**FOOD PACKAGING**  
**SEMESTERVI PAPER-II**

**Course Outcome**

- Student will be able to understand the need for packaging food
- Understand the various functions of food packages as influenced by their characteristics understand the health implications of food-package interactions.
- Students will gain knowledge about various packaging materials commonly used in the food industry
- Students will learn about the role of packaging in preserving food quality and safety

**DEPARTMENT OF FOOD AND NUTRITION**

**B.SC. I YEAR -SEMISTER 1**

**PAPER 1 INTRODUCTION TO FOOD AND NUTRITION**

**Course Outcome:** By the end of the course

**CO 1:** Student will be able to understand the basic components of food and their importance.

**CO 2:** Describe the chemical composition and structure of major food components.

**CO 3:** Students will apply basic nutrition principles to evaluate and improve their own dietary habits.

**B.SC. I YEAR -SEMISTER II**  
**PAPER II**  
**NUTRITIONAL BIOCHEMISTRY AND HUMAN PHYSIOLOGY (THEORY)**

**Course Outcome:** By the end of the course

**CO 1:** Student will learn all basic biochemical concepts relevant to nutrition, including metabolism.

**CO 2:** Student will Understand the importance of all nutrients for different age groups .

**COB 3:** Student will understand biochemical pathways involved in the metabolism

**COB 4:** Student will understand digestion, absorption, and utilization of these macronutrients for energy  
and cellular functions.

**B.SC. II YEAR -SEMISTER III**  
**PAPER-III: NORMAL AND THERAPEUTIC NUTRITION (Theory)**

**Course Outcome:** By the end of the course Student will be able to

**CO 1:** Understand the basic components of food and their importance.

**CO 3:** Student will understand the normal nutritional requirements for individuals

**CO4:** Student will develop skills to create individualized nutrition plans based on  
nutritional assessments.

**B.SC. II YEAR -SEMISTER IV**  
**PAPER-IV: DIET IN DISEASE (Theory)**

**Course Outcome:** By the end of the course

**CO 1:** Student will be able to understand the basic components of food and their importance.

**CO 2:** Student will gain knowledge about the role of diet in disease prevention and management.

**CO 3 :** Student will gain knowledge about the underlying patho physiological mechanisms of  
common diseases and disorders.



### **B.SC. III YEAR -SEMISTER V**

#### **PAPER-V: (A) BASIC DIETETICS (Theory)**

**Course Outcome:** By the end of the course

- CO 1:** Student will be able to understand the basic components of food and their importance.
- CO 2:** Understand the fundamental principles of biochemistry as they apply to food systems.
- CO 3:** Describe the chemical composition and structure of major food components .
- CO 4:** Analyze the biochemical reactions involved in food processing, preservation, and storage.
- CO 5:** Evaluate the role of enzymes in food systems and their impact on food quality and safety.

### **B.SC. III YEAR -SEMISTER VI**

#### **PAPER-VI (A)-PUBLIC HEALTH NUTRITION (Theory)**

**Course Outcome:** By the end of the course student will

- CO 1:** Understand the relationship between nutrition and human well being.
- CO 2:** Gain a foundational understanding of public health nutrition principles
- CO 3:** Explore the social, economic, and cultural, determinants of nutritional health and food choices.
- CO 4:** Understand the role of nutrition policy in promoting public health.

### **B. Sc. III YEAR - SEMESTER – VI**

#### **PAPER-VI: B-COMMUNITY NUTRITION (Theory)**

**Course Outcome:** By the end of the course

- CO:** Student will Gain a foundational understanding of community nutrition principles.
- CO:** Student will learn methods for assessing community nutrition needs
- CO:** Student will explore social, economic, and cultural, determinants of nutritional health and food choices.
- CO:** Student will understand the role of nutrition policy in promoting community health and nutrition.

# **VAAGDEVI DEGREE AND PG COLLEGE**

**An autonomous College affiliated to Kakatiya University**

**Accredited with 'A' grade by NAAC**



## **SCHEME OF INSTRUCTION AND SYLLABI**

**For**

**B. Sc NUTRITION & DIETETICS**

**UNDER CBCS SEMESTER PATTERN**

**(Effective from 2024-2025)**

**Department of Food Science & Technology**

**VAAGDEVI DEGREE AND PG COLLEGE**

**VAAGDEVI DEGREE AND PG COLLEGE**  
**B.SC. I YEAR -SEMISTER 1**

**PAPER 1 INTRODUCTION TO FOOD AND NUTRITION**

**DSC-1A (4 hr/week)**

**Theory Syllabus**

**Credits-4**  
**(60 hours)**

**Course Objectives: To enable the students to:**

**COB 1:** Understand the relationship between nutrition and human well being.

**COB 2:** understand the importance of all nutrients for different age groups and special groups

**COB 3:** To know the major and minor components of foods.

**COB 4:** To know composition and properties of food.

**Course Outcome:** By the end of the course

**CO 1:** Student will be able to understand the basic components of food and their importance.

**CO 2:** Student will know the importance of all nutrients for different age groups and special groups

**CO 3:** Describe the chemical composition and structure of major food components

**CO4:** Students will apply basic nutrition principles to evaluate and improve their own dietary habits.

**VAAGDEVI DEGREE AND PG COLLEGE**

**B.SC. I YEAR -SEMISTER II**

**PAPER II**

**NUTRITIONAL BIOCHEMISTRY AND HUMAN PHYSIOLOGY (THEORY)**

**DSC-1B (4 hr/week)**

**Theory Syllabus**

**Credits-4  
(60 hours)**

***Course Objectives: To enable the students to:***

**COB 1:** understand biochemical concepts relevant to nutrition, including metabolism.

**COB 2:** Understand the importance of all nutrients for different age groups and special groups

**COB 3:** Understand biochemical pathways involved in the metabolism of carbohydrates, proteins, and lipids.

**COB 4:** Understand digestion, absorption, and utilization of these macronutrients for energy and cellular Functions.

**Course Outcome:** By the end of the course

**CO 1:** Student will learn all basic biochemical concepts relevant to nutrition, including metabolism.

**CO 2:** Student will understand the importance of all nutrients for different age groups.

**CO 3:** Student will understand biochemical pathways involved in the metabolism

**CO 4:** Student will understand digestion, absorption, and utilization of these macronutrients for energy and cellular functions.

# VAAGDEVI DEGREE AND PG COLLEGE

## B.SC. II YEAR -SEMISTER II

### PAPER-III: NORMAL AND THERAPEUTIC NUTRITION (Theory)

DSC-1C (4 hr/week)

Theory Syllabus

Credits-4 (60 hours)

**Course Objectives: To enable the students to:**

**COB 1:** Understand the relationship between nutrition and human well being.

**COB 2:** Understand the importance of all nutrients for different age groups and special groups

**COB 3:** Understand the normal nutritional requirements for individuals

**COB 4:** Develop skills to create individualized nutrition plans based on nutritional assessments.

**Course Outcome:** By the end of the course Student will be able to

**CO 1:** Understand the basic components of food and their importance.

**CO 2:** Student will understand the importance of all nutrients for different age groups .

**CO3:** Student will understand the normal nutritional requirements for individuals

**CO4:** Student will develop skills to create individualized nutrition plans based on nutritional assessments.

**VAAGDEVI DEGREE AND PG COLLEGE**  
**B.SC. II YEAR -SEMISTER IV**  
**PAPER-IV: DIET IN DISEASE (Theory)**

**DSC-1D (4 hr/week)**

**Theory Syllabus**

**Credits-4**  
**(60 hours)**

***Course Objectives: To enable the students to:***

**COB 1:** Understand the relationship between nutrition and human well being.

**COB 2:** understand the importance of all nutrients for different age groups and special groups

**COB 3:** Understand the role of diet in disease prevention and management.

**COB 4:** Understand the underlying patho physiological mechanisms of common diseases and disorders.

**Course Outcome:** By the end of the course

**CO 1:** Student will be able to understand the basic components of food and their importance.

**CO 2:** Student will understand the importance of all nutrients for different age groups

**CO 3:** Student will gain knowledge about the role of diet in disease prevention and management.

**CO 4:** Student will gain knowledge about the underlying patho physiological mechanisms of  
common diseases and disorders.

**VAAGDEVI DEGREE AND PG COLLEGE  
B.SC. III YEAR -SEMISTER V**

**PAPER-V: (A) BASIC DIETETICS (Theory)**

**DSE-1E (4 hr/week)**

**Theory Syllabus**

**Credits-4  
(60 hours)**

***Course Objectives: To enable the students to:***

**COB 1:** Understand the Concept in Basic Dietetics, Nutritional Assessment

**COB 2:** Understand the basics of Nutritional Epidemiology

**COB 3:** Understand Diet & nutrition in different diseases.

**COB 4:** Understand feeding the patients - Psychology of feeding the patient.

**Course Outcome:** By the end of the course

**CO 1:** Student will be able to understand Concept in Basic Dietetics, Nutritional Assessment

**CO 2:** Student will understand the basics of Nutritional Epidemiology

**CO 3:** Student will understand Diet & nutrition in different diseases.

**CO 4:** Student will understand feeding the patients - Psychology of feeding the patient.

**VAAGDEVI DEGREE AND PG COLLEGE**  
**B.SC. III YEAR -SEMISTER VI**  
**PAPER-VI (A)-PUBLIC HEALTH NUTRITION (Theory)**

**DSE-1F (4 hr/week)**

**Theory Syllabus**

**Credits-4**  
**(60 hours)**

***Course Objectives: To enable the students to:***

**COB 1:** Understand the relationship between nutrition and human well being.

**COB 2:** Gain a foundational understanding of public health nutrition principles

**COB 3:** Explore the social, economic, and cultural, determinants of nutritional health and food choices.

**COB 4:** Understand the role of nutrition policy in promoting public health.

**Course Outcome:** By the end of the course student will

**CO 1:** Understand the relationship between nutrition and human well being.

**CO 2:** Gain a foundational understanding of public health nutrition principles

**CO 3:** Explore the social, economic, and cultural, determinants of nutritional health and food choices.

**CO 4:** Understand the role of nutrition policy in promoting public health.



**VAAGDEVI DEGREE AND PG COLLEGE**  
**B.SC. III YEAR -SEMISTER VI**  
**B. Sc. IIIrd YEAR - SEMESTER – VI**

**PAPER-VI: B-COMMUNITY NUTRITION (Theory)**

***Course Objectives: To enable the students to:***

**COB 1:** Gain a foundational understanding of community nutrition principles.

**COB 2:** Learn methods for assessing community nutrition needs

**COB 3:** Explore the social, economic, and cultural, determinants of nutritional health and food choices.

**COB 4:** Understand the role of nutrition policy in promoting community health and nutrition.

**Course Outcome:** By the end of the course

**CO1:** Student will Gain a foundational understanding of community nutrition principles.

**CO2:** Student will learn methods for assessing community nutrition needs

**CO3:** Student will explore social, economic, and cultural, determinants of nutritional health and food choices.

**CO4:** Student will understand the role of nutrition policy in promoting community health and nutrition.