PEO,PSO,PO & COURSE OUTCOMES FOR ALL COURSES

SNMV
College of Arts & Science

UG COMMERCE

UG SCIENCE

PG COURCES

UG

COMMERCE

SNMV

College of Arts & Science

BCOM

Program Educational Objectives (PEOs)	
PEO1	Students will able to understand the concepts of commerce.
PEO2	Programme aims to develop comprehensive professional skills which are required for commerce graduates.
PEO3	Students will develop an understanding of various commerce functions such as finance, accounting, financial analysis, project evaluation, and cost accounting
PEO4	Students will be able to prove the proficiency with the ability to engage exams like C.A, C.S and CMA
PEO5	Students can do commerce-oriented research and consequence of this; they can become Professors in Colleges and Universities

Program Specific outcome (PSOs)	
PSO1	Students can do commerce-oriented research and consequence of this; they can become Professors in Colleges and Universities
PSO2	To enhance knowledge and skills among students which built confident to identify their career opportunities in multiple dimensions.
PSO3	Nurture the students in intellectual, personal, interpersonal and social skills with a focus on relevant professional career particularly, to maximize professional growth.
PSO4	Empower the students with necessary competencies and decision-making skills to foster the innovative thinking to become an entrepreneur
PSO5	Strengthen the students to become expert in the field of communication with ethical consciousness.

SNMV College of Arts & Science

Program Outcomes (Pos)	
PO1	Build the wide range of knowledge in the areas of accounting concepts and techniques to meet the current and future requirement of the industry.
PO2	Develop the strong knowledge in the areas such as finance, taxation and laws relating to commerce helps to relate the conceptual and analytical skills in the field of auditing, finance etc.
PO3	Inculcate the students to nurture their skills in personal, interpersonal, intellectual and others skills to develop their professional career and growth.
PO4	Disseminate students to develop decision making and problem solving skills to undertake their own venture as a feasible career option.
PO5	Orient and motive the students to develop the needed knowledge in business and academics to develop their employability

DEPARTMENT NAME: BACHELOR OF COMMERCE	
Course Outcome (Cos)	
Courses	**Outcomes**
Principles of Accountancy	❖ Recalling Accounting Concepts and Conventions and use accounting rules to record business transactions in the form of Journal, Ledger, subsidiary books and preparation of Trial Balance. ❖ Understanding the steps involved in locating errors and prepare them to understand the to preparation of final accounts for sole traders. ❖ Outline the concepts of Bills of exchange, Average due date and Account Current. ❖ Examine the concepts of consignment and joint venture. ❖ Analyze the bank reconciliation statement, Receipts and payments, Income and expenditure and Balance sheet and accounting for professionals to enhance the knowledge.
Business organization and office management	❖ Understanding the concepts of business and its forms of organizations involved in sole trader, partnership firms, companies and co-operative societies and public enterprise. ❖ Analyzing the business factors which are involved in sources of finance. ❖ Explaining the functioning of stock exchanges SEBI, DEMAT of shares. ❖ Remembering office functions, layout and accommodation. ❖ Outlining office equipment and EDP.
Financial Accounting	❖ Describing the concepts based on depreciation and its methods in books of accounts. ❖ Outline about the nature of Investment and Royal excluding Sublease. ❖ Identifying the essential characteristics of single-entry system. ❖ Applying the basic concepts of departmental and branch accounting. ❖ Familiarize the procedure relating to hire purchase and installment in books of accounts
Principles of Marketing	❖ Defining the various concepts and terms related to marketing ❖ Explaining about various marketing functions ❖ Understanding terms of consumer behaviour and examined about different concepts related to consumers. ❖ Identifying the marketing mix and its elements ❖ Understanding different provisions related to trends in emerging markets
Higher financial accounting	❖ Understanding the basic concepts of partner and procedures related to calculation of ratios. ❖ Acquiring the principle at the time of retirement in the books of partner ❖ Analyzing dissolution and insolvency of firms and individuals. ❖ Evaluate the insolvency or loss of individuals or firms. ❖ Examine the concepts based on voyage, Human resource and inflation accounting
Commercial law	❖ Assessing the various elements related business law and contract ❖ Interpreting different type of contract and its features ❖ Explain about the agency system related to creation and termination of agency ❖ Compare between rights and duties of indemnity, guarantee ❖ Examine the distinct between sale and agreement to sell and its features

SNMV College of Arts & Science

Principles of management	❖ Explaining the concepts based on management and its features ❖ Summarizing the principles and importance of planning ❖ Interpreting various concepts based on organization and its element ❖ Examining the determinants of behaviour and motivation theories ❖ Understanding the need and techniques of communication in management
Corporate Accounting-1	❖ Explaining about the basic provisions towards issue of shares in market ❖ Understanding the concepts of debenture and its accounting ❖ Analyze the companies final accounts and Managerial Remuneration ❖ Estimating methods of goodwill and shares ❖ Examine various procedures related to liquidation of companies
Computer Applications in Business	❖ Recall the various concepts relating to computer and its various parts ❖ Understand the meaning of software's, operating system etc ❖ Understanding the meaning and utility of database management system ❖ Evaluate the various aspects of management information system ❖ Generating more ideas regarding the use of internet for business purpose ❖ Recall various terms of computer and its part ❖ Understand the meaning of software, operating system, programming language and its features ❖ Comparing Data Vs Information and its management system ❖ Understanding about various concepts of management information system ❖ Explain about networking and elements based on internet
Company law and secretarial practice	❖ Define the fundamentals of corporate law ❖ Identify the role, responsibilities, appointment and liabilities of corporate directors ❖ Analyzing various winding up procedures, regulations and formalities under law ❖ Examine the role of corporate secretaryship and specific conditions ❖ Outline corporate level meetings with regard to duties of company secretary, drafting correspondence, Notice, Agenda and Minutes
Executive business communication	❖ Outline the importance of effective business communication ❖ Understand the intricacies of responding to business related queries ❖ Categorizing effective correspondence with banks, insurance and agencies ❖ Examine effective response to company secretarial correspondence ❖ Analyze new innovative and effective ideas for business communication
Banking theory	❖ Illustrate the classification of commercial banks, functions and credit creation ❖ Outline the recent trade in banking ❖ Analyze the functions of central banks and its credit controlling measures ❖ Examine the concepts of Indian Money Market ❖ Explain the role of SBI Commercial banks and Development banks
Corporate Accounting- II	❖ Recall various concepts and methods of preparing accounts under mergers and acquisitions ❖ Understand various methods of preparing holding company accounts ❖ Understand various methods of preparing and assessing final accounts of banking companies ❖ Analyze the final accounts of insurance companies ❖ Analyze the accounting statements of electricity companies
Banking Law and Practices	❖ Remembering the various terms and concepts used in banking industry ❖ Understanding the various process and activities of accounts in banks ❖ Outline various features of cheques for easy and simple banking ❖ Examine the various loans and advance related process in banks

SNMV College of Arts & Science

	❖ Classifying various kind of documents involved in banking services
Cost Accounting	❖ Recall various concepts of costing and costing methods ❖ Analyze the various elements of costing ❖ Explain the labour wage payment system ❖ Outline the cost under process costing system ❖ Examine about operational costing, contract costing and Reconciliation of Cost and Financial Statements.
Income tax law and practices	❖ Outline the various terminologies related to income tax ❖ Understand the method of calculating and levying tax ❖ Apply the various tax laws and available provisions in tax computations ❖ Evaluate the set off and carry forward of losses while calculating personal income ❖ Analyze self-assessment of income and tax computation
Management accounting	❖ Outline the various concepts relating to management accounting ❖ Analyze financial statements using ratio analysis ❖ Evaluate the working capital management of companies ❖ Comparing various alternatives using marginal costing and decision making ❖ Analyze new budget and budgetary control for organizations
Principles of Auditing	❖ Define the important concept and rules relating to auditing ❖ Outline the techniques and applicability of internal audit ❖ Analyze the valuation of assets and liabilities in business ❖ Analyze the accounts and auditing the joint stock companies ❖ Examine about investigation and auditing of computerized accounts
Indirect taxes	❖ Recall various concepts relating to Indirect tax regime in India ❖ Analyze the concept and applicability of GST in businesses ❖ Compare the GST regime with other indirect tax laws prior to it ❖ Illustrate GST system in own business and other prototypes ❖ Examine the custom law and related duties and taxes
Business finance	❖ Outline various concepts relating to finance ❖ List the various techniques of financial planning ❖ Analyze various sources and forms of finance ❖ Examine the various dimensions of capital market and their components ❖ List the capitalization concept and related theories for decision making
Entrepreneurial development	❖ Recall the importance and role of entrepreneurship as an economic activity ❖ Explain the various process of setting up a startup ❖ Outline the various institutional services to entrepreneur ❖ Analyze the various financial institution available to support entrepreneurs ❖ List the various subsidies and incentives available for entrepreneurs
Financial markets	❖ Define the basic concepts of financial market ❖ Analyze the working and components of corporate securities market ❖ Explain the functioning of stock exchanges in India ❖ Explain the role of banks and intermediaries in financial market ❖ Apply various trends and new modes in financing
Agricultural Economics of India	❖ Provide a strong knowledge base on agricultural economy of India's both during pre and post reform periods ❖ Understand agricultural lab our wages and lab our income ❖ Gain knowledge on agricultural marketing strategies which enable them to understand the legislative measures of India in protecting farmers rights

SNMV College of Arts & Science

	❖ Provide a strong knowledge base on land reforms and land tenure system both during pre and post reform periods ❖ Understand need of agricultural finance and sources of agricultural finances
Economic Analysis	❖ Providing basic tools and methods of economic analysis. ❖ Understand the concepts, methodology and the behaviour of the economic agents as a consumer and a producer. ❖ Remembering knowledge regarding planning techniques. ❖ Expose the students of the various issues of the economy markets ❖ Understand the role of money and theories of money
Mathematics For Business	❖ Gain the knowledge about the basic concept of interest, arithmetic and geometric series, set theory ❖ Understand about the matrix ❖ Remembering the derivatives and basic concept of differentiation ❖ Apply the basic concept of integration ❖ Explain the concept of LPP and Graphical Methods, Simplex Method
Statistics for Business	❖ Analyze the types of data, methods of collection, Concept of mean, median, mode, harmonic and geometric mean ❖ Explain the statistics and Concept of Range, Quartile Deviation, Mean Deviation Abor mean, Median and Mode, Skewness of Pearson and Bowley Methods. ❖ Understanding the statistics and Concept of Correlation, Types of Correlation, Methods of Correlation and Regression in two variables and also in normal equations. ❖ Illustrate the times series with long- and short-term components and index numbers with Weighted and Un-weighted index numbers. ❖ Explain the statistics and concept of Probability and interpolation and extrapolation.

SNMV
College of Arts & Science

2. B.Com CA (Commerce with Computer Applications)

Program Educational Objectives (PEOs)	
The **B.Com (Computer Applications)**program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To Provide students with specific knowledge and skills relevant to their disciplines and careers.
PEO2	To make the students acquainted with technical and practical concepts for understanding the real business problems using different programming languages.
PEO3	To train the students on practical business applications using high level programming languages in real world.
PEO4	To make the students aware about the useful applications of different computer languages that solve real world problems.
PEO5	To enhance the knowledge on visual based programming language and object-oriented language in different business applications using various design principles portraying the concepts of computer applications in business activities.
Program Specific outcome (PSOs)	
After the successful completion of **B.Com (Computer Applications)** program, the students are expected to	
PSO1	Know and apply the various business management and computer applications concepts to solve the real-world problems.
PSO2	Acquire the knowledge on object-based computer applications in various business fields. PSO3
PSO3	Solve the business applications related issues of using oracle and object oriented programming languages
PSO4	Analyze the real e-business problems by using the different applications of procedure-oriented language programs
PSO5	Enrich the practical knowledge on applications of accounting and programming languages in business ventures.
Program Outcomes (Pos)	

SNMV
College of Arts & Science

After the successful completion of **B.Com (Computer Applications)** program, the students are expected to	
PO1	Develop the accounting, finance, banking, Insurance, marketing as well as the computer application knowledge to the students.
PO2	Create awareness of the students about Business law, Tax Law and legislations related to business and computer applications
PO3	Get the training to learn how to develop successful computer programs to solve the business problems for increasing the productivity of the e-business
PO4	Obtain the practical application exposure on ms-office and oracle software.
PO5	Apply object oriented or non-object oriented techniques to solve business computing problems which make students a good programmer.

DEPARTMENT NAME	
DEPARTMENT NAME	
Courses	**Outcomes**
PRINCIPLES OF ACCOUNTANCY	Recall the fundamental concepts of accounting and book keeping.
INTRODUCTION TO INFORMATION TECHNOLOGY	Understand the basic concepts about hardware and software components and data retrieval from various areas of business.
MATHEMATICS FOR BUSINESS	Understand the basic concepts of arithmetic and geometric series and different effective rates of interest for sinking fund, annuity and present value.
COMPUTER APPLICATIONS: MS OFFICE – PRACTICAL-I	Understand the basic concepts computer applications using MS-Office applications for the business transactions.
ADVANCED ACCOUNTING	Understand the different methods of depreciation.
COMPUTER APPLICATIONS: MS OFFICE – PRACTICAL-I	To gain knowledge on creating e-mail in tally package.
STATISTICS FOR BUSINESS	Understand the basic concepts of arithmetic and geometric mean and different types of data collection.
PRINCIPLES OF MARKETING	Understand the different types of marketing and career opportunities in marketing.
DATABASE MANAGEMENT SYSTEM	Understand the basic concepts of data system, operational data and storage structures of the data
COST ACCOUNTING	Understand the different concepts and classification of costs and create cost sheet for the firms.
MANAGERIAL ECONOMICS	Familiarize the students with the basic concept of managerial economics

SNMV
College of Arts & Science

Computer Applications: Oracle -Practical-II	Understand the basic concepts computer applications using Oracle for maintaining the database.
COMMERCIAL LAW	Understand the effectiveness of basic concept of law.
MANAGEMENT ACCOUNTING	Recall the objectives and scope of management and know the relationship between other managerial accounting.
OBJECT ORIENTED PROGRAMME WITH C++	Compare the different types of languages and find the importance of object-oriented programming language
EXECUTIVE BUSINESS COMMUNICATION	Understand the effectiveness of business communication
COMPUTER APPLICATIONS : ORACLE & C++ PRACTICAL-II	Create programs by applying class and member functions concept
BANKING THEORY	Discuss the Basic concepts, functions and Classification of Banking System
PRINCIPLES OF MANAGEMENT	Conceptualize the nature and scope of Management process
COMPANY LAW	Discuss the characteristics of Company and its Formation
PRINCIPLES OF AUDITING	Understand about the fundamental concepts Auditing.
CORPORATE ACCOUNTING	Understand about the issue of shares of the companies.
E-COMMERCE TECHNOLOGY	Understand the basic concept of E- Commerce and its applications
SOFTWARE DEVELOPMENT WITH VISUAL BASIC	Understand the concept on client and server
COMPUTER APPLICATIONS : VISUAL BASIC – PRACTICAL-III	Understand the basic concepts computer applications using Oracle for maintaining the database.

SNMV
College of Arts & Science

BANKING AND INSURANCE LAW	Understand the Concepts, functions of banking and relationship between Banker and Customer K
INCOME TAX LAW & PRACTICE	
MANAGEMENT INFORMATION SYSTEM	Acquire knowledge on basic knowledge on MIS.
INTERNET AND WEB DESIGNING	Learn the functions and uses of internet.
COMPUTER APPLICATIONS : VISUAL BASIC& WEBDESIGNING PRACTICAL-III	Create different databases using vb application for developing the business transactions
CYBER LAW	Discuss the concepts of Cyber law and Cyber Space
BRAND MANAGEMENT	Recall various terms and concepts relating to branding
FINANCIAL MARKETS	Recall the fundamental concepts of financial markets

SNMV
College of Arts & Science

BBA

Program Educational Objectives (PEOs)	
PEO1	Graduates will be capable of making a positive contribution to business, trade and industry in the national and global context.
PEO2	Graduates will be able to apply frameworks and tools to arrive at informed Decisions in profession and practice, striking a balance between business and social dimensions.
PEO3	Graduates will have a solid foundation to pursue professional careers and take up higher learning courses such as MBA, MCA, MCM, MMM, M.Phil, Ph.D as well as research.
PEO4	Graduates with a flair of self-employment will be able to initiate and build upon entrepreneurial ventures or demonstrate entrepreneurship for their employer organizations.
PEO5	Graduate will recognize the need for adapting to change and have the aptitude and ability to engage in independent and life – long learning in the broadest context of socio-economic, technological and global change.
Program Specific outcome (PSOs)	
PSO1	Understand of the corporate world.
PSO2	Analyse the theoretical knowledge with the practical aspects of Organizational setting and techniques or management.
PSO3	Determine conceptual and analytical abilities required for effective decision making.
PSO 4	Understand the dynamic and complex working environment of Business.
PSO 5	Understand the problems faced by the business sector in the Current scenario.
PSO 6	Analyse the ups and downs of the stock market.
PSO 7	Understand the rapid changes of financial services include banking and insurance sectors.

SNMV
College of Arts & Science

PSO 8	**Understand the micro and macro marketing environment.**
PSO 9	**Understand the international trade procedure and documentation.**
PSO 10	**Understand the Forms of business organization.**
PSO 11	**Understand the business correspondence and communication.**
PSO 12	**Determine the organizational behaviour and its conflict.**
Program Outcomes (Pos)	
PO1	**Develop the knowledge, skill and attitude to creatively and systematically apply the principles and practices of management, accountancy, finance, business law, statistics, HR, operations and IT to management problems and work effectively in modern day business and non-business organizations.**
PO2	**Develop fundamental in-depth knowledge and understanding of the principles, concepts, values, substantive rules and development of the core areas of business such as finance, accounting, marketing, HR, operations along with the tools such as Tally, MS Excel, MS Office, etc.**
PO3	**Demonstrate the critical thinking mindset and the ability to identify and formulate research problems, research literature, design tools, analyse and interpret data, and synthesize the information to provide valid conclusions and contextual approaches across a variety of subject matter.**
PO4	**Exhibit self-confidence and awareness of general issues prevailing in the society and communicate effectively with the accounting, commerce, management, business, professional fraternity and with society at large through digital and non-digital mediums and using a variety of modes such as effective reports & documentation, effective presentations, and give and receive clear instructions.**
PO5	**Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings by demonstrating life skills, coping skills and human values.**
PO6	**Analyse the sampling techniques of collecting primary and secondary data and tools and techniques of data.**
PO7	**Understand the methods of collecting primary and secondary data. Construction of scaling techniques and Determine the steps involved in design of questionnaire.**

SNMV College of Arts & Science

	Analyse and preparation of project report for the Functional areas of research.
PO8	**Determine the functional areas of management such as Production, purchasing, marketing, sales, advertising, finance, human resource system, Industry 4.0Understand the SERQUAL of the various service industries.**
PO9	**Analyse the various aspect of business research in the area of marketing, human resource and Finance.**
PO10	**Analyse the various financial and accounting concept including Balance sheet , trial balance, etc.,**

DEPARTMENT NAME	
BBA	
Course Outcomes	
Courses	Outcomes
PRINCIPLES OF MANAGEMENT	On successful completion of this course, the students should have understood Principles & functions of Management, Process of decision making, Modern trends in management process.
BASICS OF BUSINESS & BUSINESS ENVIRONMENT	On successful completion of this subject the students should have Knowledge on the meaning conveyed by the word 'Business' , understand the various forms of business , types of business and impact of various aspects on business environment.
ORGANISATIONAL BEHAVIOUR	To inculcate knowledge on Personality, Perception, Motivation, Job-satisfaction, morale, Group dynamics, Leadership traits, Counselling and guidance, etc.
ECONOMICS FOR EXECUTIVES	Enable the student to understand the objectives of business firms, Factors of production and BEP Analysis, Types of competitions and price administration, Government measures to control monopoly
FINANCIAL ACCOUNTING	To inculcate knowledge on the basic accounting concepts, Double entry book keeping system and various books of accounts Preparation of final accounts, etc.
PRODUCTION AND MATERIALS MANAGEMENT	To inculcate knowledge on Principles, functions and process of Production Management, Effective management of materials
MARKETING MANAGEMENT	Enable the student to understand the Principles of marketing management, market segmentation Product life cycle, pricing, branding etc.
BUSINESS LAW	To inculcate knowledge on various laws relating to business such as law of contract, law of sale of goods, law of agency, Negotiable Instruments Act etc.
HUMAN RESOURCE MANAGEMENT	On Successful Completion of this subject, the students should have understood the functions of Human Resource /Personnel Department, Manpower planning, performance appraisal, Salary administration, Labour Welfare, Industrial Relations etc.

SNMV College of Arts & Science

FINANCIAL MANAGEMENT	**On Successful Completion of this subject, the students should have understood the functions of Finance, Cost of capital, Capital structure, Capital Budgeting, Working capital management**
MANAGEMENT INFORMATION SYSTEM	**To inculcate knowledge on Computer based information system MIS support for the functions of management**
TAXATION – LAW AND PRACTICE	**Enable the student to understand the Principles of Direct and Indirect Taxes Calculation of Tax, Tax Authorities, Procedures**
COST AND MANAGEMENT ACCOUNTING	**To inculcate knowledge on Cost sheet, Material issues, Labour cost, Financial statement analysis, Budgeting etc.**
RESEARCH METHODS FOR MANAGEMENT	**Enable the student to understand the Research methods and sampling techniques, Analysis and interpretation of data, Application of research**
ADVERTISING AND SALES PROMOTION	**On successful completion of this course, the students should have understood Advertising, Ad media, Ad agencies, Sales force management, promotional strategies**
MODERN OFFICE MANAGEMENT	**Enable the student to understand and acquaint with modern office procedures such as filing, indexing, safeguarding, maintenance etc.**
CUSTOMER RELATIONSHIP MANAGEMENT	**On successful completion of this course, the students should have understood Relationship Marketing, Sales Force Automation, Database Marketing etc.**
INDUSTRY 4.0	**After completion of this course, students should have knowledge about recent trends in the industry, updated technologies such as Big data analytics, Artificial Intelligence, etc.,**
INVESTMENT MANAGEMENT	**To inculcate knowledge on Investment avenues, Security analysis**
SERVICES MARKETING	**On successful completion of this course, the students should have understood the growing importance of services in every organization**
INDUSTRIAL RELATIONS AND LABOUR LAWS	**Enable the student to understand and acquaint with Legislations relating to Industrial Disputes and Labour welfare.**
CONSUMER BEHAVIOUR	**On successful completion of this course, the students should have understood consumer motivation and perception, Learnt**

SNMV College of Arts & Science

	consumer learning and attitude Learnt consumer decision making.
BIGDATA ANALYTICS	**On successful completion of this course, the students should have understood about Big data, Data science and analytics. They will get to know how to apply the big data science and analytics concept in business.**
ARTIFICIAL INTELLIGENCE	**Students should gain knowledge about what is Artificial Intelligence, its concepts and how its applicable in business.**

B.COM IT

Program Educational Objectives (PEOs)	
The B.COM IT program describes the accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Students will be able to understand the concepts of Commerce
PEO2	Programme aims to develop comprehensive professional skills which are required for Commerce graduates.
PEO3	Students will acquire necessary skills to work in computerized accounting regime
PEO4	Students will be able to get trained in relevant computerized accounting packages
PEO5	Students can do commerce with necessary IT Skills towards research and consequence of this, they can become Professors in Colleges or become highly valued Industrial Experts in Digital Accounting
Program Specific outcome (PSOs)	
The ability to understand, analyze and develop software programs in the areas related to system software, multimedia, web design, application program, database , graphics and networking for efficient design of technology of varying complexity.	
PSO1	To replicate the concepts, principles and theories in the field of Commerce, Accounting, Finance, Law and Taxation with necessary IT Skills which promote the growth of their professional career and entrepreneurship.
PSO2	To infuse skills relating to computerized accounting packages to enable students in better career placements.
PSO3	Nurture the students in intellectual, personal, interpersonal and social skills with a focus on relevant professional career particularly, to maximize professional growth.
PSO4	Empower the students with necessary IT-based accounting skills for prospective employment across many industries.
PSO5	Strengthen the students to become expert in the field of Information technology with ethical consciousness.
Program Outcomes (Pos)	
This program could provide well trained professionals for the technology and allied industries to meet the well trained manpower requirements. The graduates will get hands on experience in various aspects of information technology viz. software updation,programme developers, software testing,BPO,web designer. The program will help the graduates to take up responsibilities in production, testing, designing and marketing in the information	

SNMV College of Arts & Science

technologies and contribute for the growth of industry.	
PO1	Develop a broad range of knowledge in the computerized accounting field based on various accounting concepts and practices
PO2	Build a strong foundation in the areas of accounting, banking, tax, programming and computerized accounting packages
PO3	Nurture the students in intellectual, personal, interpersonal and societal skills with a focus on relevant professional career to maximize professional growth.
PO4	Empower students with necessary programming and computer skills for better and advanced career opportunities aiming with focus on accounting and for all Commercial activities
PO5	Train and develop students in information technology sector with great orientation on ethical aspects, security system and quality.

DEPARTMENT NAME	
DEPARTMENT NAME	
Course Outcomes	
Courses	**Outcomes**
Computing Fundamentals and C Programming	On successful completion of this subject the students have the programming ability in C Language
DATABASE MANAGEMENT SYSTEM	To acquaint practical knowledge about creating and manipulating data in
C++ PROGRAMMING	To inculcate knowledge on Object-oriented programming concepts using C++.
NETWORKING MANAGEMENT	The paper aims to combine the fundamental concepts of data communications
JAVA PROGRAMMING	To inculcate knowledge on Java Programming concepts
SOFTWARE DEVELOPMENT IN VB (Visual Basic)	To enable students to create a software package using VB
COMPUER NETWORKS	To inculcate knowledge on Networking concepts and technologies like wireless, broadband and Bluetooth.
E-BUSINESS	The paper imparts understanding of the concepts and various application issues of e-business like Internet infrastructure, security over internet, payment systems and various online strategies for e-business.
PROJECT WORKPROJECT WORK	The aim of the Project work is to acquire practical knowledge on the implementation of the programming concepts studied.

SNMV
College of Arts & Science

B COM PA

Program Educational Objectives (PEOs) The **B.Com (Professional Accounting)** program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Student will possess a deep and broad understanding of Accounting principles and practices as evidenced by professional employment, continued professional development and graduate study in professional fields.
PEO2	To demonstrate professional expertise in financial planning, analysis, control, Decision support and professional ethics with the employees
PEO3	Graduates will be responsive to professional and societal contexts, committed to ethical concerns, effective and contributing member of the community
PEO4	Able to work in a company where the business is continuously expanding and growth prospects are good.
PEO5	Graduate will be flexible, adaptable, independent and collaborative with leadership qualities, so as to sustain oneself working in multidisciplinary team
Program Specific outcome (PSOs)	
After the successful completion of **B.Com (Professional Accounting)** program, the students are expected to	
PSO1	complete the intermediate level in professional programmes like CA, ICWA and ACS
PSO2	Provide several opportunities to engage with the accounting professionals
PSO3	Implement creativity and problem solving skills in various real life time problems.
PSO4	Acquire several opportunities to engage with the accounting professionals and learn from their experiences
PSO5	Learn relevant managerial accounting skills with emphasis on application of both quantitative and qualitative knowledge to their future careers.
Program Outcomes (Pos)	
On successful completion of the **B.Com (Professional Accounting)** program	
PO1	Ability to apply ethical principles and responsible practices during their profession
PO2	Ability to engage in independent and lifelong learning for continued professional development.

SNMV College of Arts & Science

PO3	Become qualified professionals in the field of accounting and auditing.
PO4	Demonstrate professional ethics in legal aspects of business
PO5	Ability to apply ethical principles and responsible practices during their profession

DEPARTMENT NAME	
DEPARTMENT NAME	
Course Outcomes	
Courses	Outcomes
Principles of Accountancy	1. To enable the students to learn basic Principles of Accountancy. 2. To make the students skillfully to prepare and present the final accounts of sole trader. 3. To promote knowledge about Bill of Exchange, Average Due date and Account Current. 4. To provide knowledge about consignment and joint ventures 5. To gain knowledge about bank reconciliation statement and accounting for professionals
Introduction to Information Technology	1.To develop an understanding of hardware and software computer system. 2. To provide knowledge about types of computer system 3.To know about components of computers and its application 4. To promote knowledge about operating system 5. To gain knowledge about system analysis design
Computer Applications Practical-I (MS Office)	1. To familiarize with working in MS-WORD 2. To understand the working in MS-EXCEL 3. To understand the working in MS- POWERPOINT
Mercantile Law	1. To understand basic concepts about various laws like Indian Contract Act 1872 2. To promote the knowledge about provisions relating to elements of a valid contract 3. To provide an outline about the performance and breach of contract 4. To provide an insight on provisions relating to the formation of contract of sale. 5. To gain knowledge regarding essential features of partnership and company and basic documents of partnership and company.
Computer Application Practical-I (MS - Office)	1. To provide practical knowledge in working with MS- ACCESS 2. To understand the basics of working in Tally accounting package 3. To provide insights about the usefulness of internet in business purpose
Industrial Law	1. To know the development and the judicial setup of Labour Laws. 2. To learn the salient features of welfare and wage Legislations. 3. To learn the laws relating to Industrial Relations, Social Security and Working conditions. 4. To understand the laws related to working conditions in different settings. 5. To understand the benefits under the Act adjudication of disputes and claims.
Strategic Management	1. To provide insight knowledge on environment of the business.

SNMV College of Arts & Science

	2. To understand the strategic decisions that organisations make and have an ability to engage in 3. strategic planning. 4. To Integrate and apply knowledge gained in basic courses to the formulation and 5. implementation of strategy from holistic and multi-functional perspectives. 6. To promote knowledge for evaluating strategy and strategic control. 7. To recognize the principles guiding the process of business and business re-engineering.
Cost Accounting	1. To understand the concept and various components of costing 2. To provide knowledge about the different levels of material control 3. To promote knowledge about various systems of wage payment and classification of overheads 4. To assist preparation of accounts under process costing 5. To familiarize with the techniques of operating costing
Computer Applications Practical-II (Oracle)	1. To provide practical knowledge in creating table using oracle 2. To understand the basics of working in oracle 3. To provide insights about the usefulness of internet in business purpose 4. To promote knowledge about the inventory management using oracle. 5. To prepare payroll for calculating basic par and HRA for an employee
Advanced Accounting 1	1. To enable the students to learn provision for depreciation account. 2. To make the students skillfully to prepare branch accounts and hire purchase accounts. 3. To learn about the preparation of accounts using single entry system. 4. To enhance the conceptual skills to prepare the partnership accounts. 5. To provide knowledge about the dissolution and insolvency of firm.
Management Accounting	1. To conceptualize management accounting 2. To analyse the financial statements using ratio analysis 3. To analyse the working capital of business 4. To assist in decision making using marginal costing 5. To assist in preparing budget and budgetary control
Executive Business Communication	1. To provide an overview of Prerequisites to Business Communication. 2. To put in use the basic mechanics of Grammar for preparing business letters. 3. To provide an outline to effective Organizational Communication. 4. To underline the nuances of Business communication. 5. To impart the correct practices of the strategies of Effective Business writing.
Computer Applications Practical-II (C++)	To understand the working C++ coding To familiarize with payroll statement and others (using control structures).
Advanced Accounting-II	1. To make the students to understand the basics of preparing partnership accounts 2. To make the students to understand the procedures of admission. Death and retirement of partner

SNMV College of Arts & Science

	3. To promote the knowledge about the dissolution of firm and amalgamation of firm. 4. To enable the students to learn the accounting treatment relating to conversion and sale of a company. 5. To impart the thorough knowledge on the accounting standards.
Auditing and Assurance- I	1.To educate the concept of auditing and its relationship with other disciplines. 2.To enhance the practical knowledge relating the procedures of auditing practices 3. To provide insight about the audit procedures for obtaining audit evidence 4. To promote knowledge about internal control and computerized environment. 5.To develop the analytical concept and internal control over the accounting reviews.
Principles of Auditing	1.To educate the concept of auditing and audit programmes. 2.To provide insight on Internal audit and vouching of trading transactions. 3. To provide the procedures to be followed for the verification and valuation of assets and liabilities. 4.To enhance the practical knowledge relating the procedures of auditing practices of Joint stock companies. 5.To enrich knowledge about the provisions of investigation under companies act.
Direct Tax-I	1. To enlighten the students to learn the Basic provisions of the Income Tax Act. 2. To familiarize with calculation of income from Salaries and house property 3. To provide knowledge about the calculation of income from Profit and Gains of Business or Profession and Income from Other Sources 4. To provide the knowledge about the provisions for calculation of income from capital gains 5. To make the students to learn the procedure to compute the tax liability of an individual.
Direct Tax II	5. To gain knowledge to solve simple problems concerning assesses with the status of HUF and Firms. 2. To provide insight on the provisions for assessment of AOP and Companies 3. To understand the provisions relating to the assessment of cooperative societies 4. To apply tax procedures relating Appeals and Provisions, Penalties and Prosecution 5. To gain practical knowledge in computation of wealth tax

SNMV College of Arts & Science

Corporate Accounting	1. To recall the basic accounting concepts of issue of shares and debentures 2. To provide knowledge about redemption of preference shares and debentures 3. To assist the preparation of final accounts of company 4. To understand the accounting procedure for valuing shares and goodwill 5. To apply the provisions for preparing accounts related to liquidation of companies
Auditing and Assurance-II	1. To educate the concept of auditing of receipts and vouching of accounting transactions. 2. To enhance the practical knowledge relating the procedures of auditing practices. 3. To promote the analytical concept relating to audit of impersonal ledger and assets and liabilities 4. To describe the provisions relating to company audit 5. To gain practical knowledge about the audit of service institutions
Indirect Taxes	1. To understand the applicability of indirect taxes and methods of levying in India 2. To familiarize with the calculation and execution of goods and service tax in India 3. To provide knowledge about the Levy and Collection under GST 4. To provide insight on the Levy and Collection under Integrated Goods and Services Tax Act 5. To understand the applicability of custom law in India
Financial Markets	1. To understand the basic concepts of financial market 2. To describe the working and components of corporate securities market 3. To understand the various functions of stock exchanges in India 4. To familiarize with the role of banks and intermediaries in financial market 5. To provide insights about the new models and innovative trends in financing
Entrepreneurial Development	1. To understand the basic concepts of entrepreneurship and related initiatives 2. To provide insights about the setting up of startups and projects 3. To familiarize with the institutional services to entrepreneur 4. To provide knowledge about various financial support available to the entrepreneurs 5. To provide knowledge about various subsidies and incentives available for entrepreneurs
Business finance	1. To understand the various concept relating to finance 2. To familiarize with the basics of financial planning 3. To analyze various nature of capitalization suitable to the business 4. To understand the various dimensions of capital structure and their Components 5. To provide knowledge about various available sources of finance

SNMV College of Arts & Science

BCOM B&I

Program Educational Objectives (PEOs)	
The B. COM B&I program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To take up a higher level job in banking and insurance sector
PEO2	Get thorough knowledge in the services offered by Banks and Insurance sector
PEO3	Practical exposure in the banking and insurance field helps them to take up a challenging jobs
PEO4	Able to act as a consultant in the areas of banking and insurance
PEO5	Able to develop required software in the ICT era
Program Specific outcome (PSOs)	
After the successful completion of B.COM B&I program, the students are expected to	
PSO1	Pursue higher education with either Banking or Insurance as specialization
PSO2	Work as a financial risk manager by undergoing training in the reputed companies
PSO3	Take a job as an accountant
PSO4	It helps to attain a better career path
PSO5	Take up a relevant job
Program Outcomes (Pos)	
After the successful completion of B.COM B&I program, the students are expected to	
PO1	Know the functions and services of Banking industry
PO2	Analyse the policies offered by Insurance industry
PO3	Determine the risk involved in the Insurance
PO4	Update the latest innovations made in Banking and Insurance companies

SNMV College of Arts & Science

DEPARTMENT NAME	
DEPARTMENT NAME B.com Banking and Insurance	
Course Outcomes	
Courses	**Outcomes**
Principles Of Accounting	5. Recall the fundamental concepts of accounting, book keeping and prepare arious books of accounts 2 Apply the concepts and preparing final accounts statement. 3 Familiarise Bills of exchange and its transaction including Accommodation bills 4 Gain knowledge on Consignment accounts 5 Understand Receipts & Payment Account, Income & Expenditure Account and Balance Sheet for Non-Profit
Indian Banking System	1.Explain the structure of Indian banking system. 2 Outline the History and functions of State Bank of India and its challenges 3 Summarize the various acts related to banking regulation 4 Know about the Regional Rural Cooperative Banks in India and its function 5 Explain RBI functions, working and policy
Business Mathematics	1.Understand the financial functions of business mathematics 2 Know the calculation of interest rates. 3 Aware of Derivative markets and its calculation. 4 Know the basic concepts of addition and multiplication analysis. 5Analyze the linear programming problem by using graphical solution
Financial Accounting	1.Apply the accounting techniques for Partnership Accounts 2 Understand the techniques and procedures on insolvency of partner and conversion of firms 3 Determine the amount of depreciation by applying different methods and also can prepare royalty accounts 4 Demonstrate hire purchase system 5 Explain the reasons for suspending partnership and identify modes of dissolution
FUNDAMENTALS OF INSURANCE	1.Acquire knowledge on basics of insurance 2 Explain the procedures to be the agent 3 Summarize the various functions of Insurance agent 4 Understand the policies of insurance company 5 Demonstrate the types of insurance
STATISTICS FOR BUSINESS	1.Produce appropriate graphical and numerical descriptive statistics for different types of data. 2 Apply statistical concepts to analyze the business problems. 3 Explain the concepts of average and range of data collection. 4 Examine the relationship between the variations. 5 Examine the Correlation and Regression
CORPORATE ACCOUNTING	1.To Understand the various adjustments related to share capital 2 Prepare the final accounts of joint stock companies 3 Explain the concept of Amalgamation and & reconstruction and Prepare the accounts of companies undergoing amalgamation and external reconstruction 4 Prepare the accounts of companies on the event of internal reconstruction 5 Prepare final accounts of Banking Companies and insurance companies

SNMV College of Arts & Science

FUNDAMENTALS OF ENTREPRENEURSHIP	1.Acquire knowledge on entrepreneurship and the requirement for entrepreneur 2 Explain the role of Small Scale industries in India and their governing policies 3 Elaborate the steps to be followed to startup a new business venture 4 Design Business plan and by avoiding common pitfalls 5 Summarize the various financial and non-financial assistance providers
BANKING LAW AND PRACTICE	1.Gain knowledge on Laws related to Banking 2 Acquire knowledge on Types of customers 3 Understand the relationship between bank and customer 4 Recall the various instruments and its types dealt with banks 5 Enumerate Paying bank and its functions
BUSINESS ECONOMICS	1.Explain the basic concept of Business economics. 2 Understand the consumer behavior in various approaches 3 Understand the demand and supply analysis in business applications 4 Analyze the causes and consequences of production . 5. Classify demand forecasting and law of supply
BUSINESS REGULATORY FRAMEWORK	1 List out the fundamental legal principles behind contractual agreements 2 Gain basic knowledge of bailment and pledge 3 Understand the sale of goods act 4 Understand the negotiable instruments 5 List out the procedure involved in consumer protection act
MERCHANT BANKING	1 Summarise the functions of merchant bankers 2 Understand the procedure to rate the companies adapted by credit rating agencies 3 Understand the methods of issue 4 Build a project using social cost benefit analysis 5 Understand the sources of finance
FINANCIAL MANAGEMENT	1Relate the concept of financial management 2 Understand the sources of long term fund 3 Compare different types of leasing and classify capital structure theories 4 Apply the working capital management for a particular company 5 Analyse the dividend policy of different companies
FINANCIAL SERVICES	1 Classify and compare the types of leasing 2 Understand the schemes of mutual funds 3 Apply portfolio management techniques 4 Gain knowledge on the effectiveness of mergers and acquisitions 5 Spell out the functions of depositories
COST ACCOUNTING	1 Explain the elements of cost 2 Adapt appropriate method for apportionment of overhead 3 Understand the different types of costing 4 Apply the process costing 5 Discuss about the variances of cost
COMPANY LAW	1 To explain the process of incorporation of a company 2 Understand the contents of articles and memorandum of association 3 Explain the procedure for appointment of directors 4 Discuss the procedure for conducting a company meeting 5 Evaluate the winding up procedure of a company
Computer Application in	1 To gain knowledge about the challenges of IT 2 Understand the versions of operating system

SNMV College of Arts & Science

Business	3 Explain Communication Technology 4 To study the various applications of IT 5 Elaborate the E Banking services
Commercial Bank Management	1 List out the functions of manager 2 Understand the types of deposits and advances 3 Understand the investment management procedure 4 Gain knowledge on loan application process 5 Understand the foreign exchange management system
MARKETING MANAGEMENT	1 Label the modern views on marketing 2 Understand the concept of product life cycle 3 Apply different pricing techniques for different products 4 Understand the channels of distribution 5 Learn the techniques of sales promotion
Insurance Management	1 Spell out the tax benefits of insurance 2 Apply the procedure for premium calculation 3 Understand the documents involved in insurance 4 Evaluate the insurance products available 5 Analyse the group insurance policies
Income Tax law and Practice	1 Understand the procedure for residential status and the exempted income 2 To construct the income from house property 3 Evaluate the income from business and profession 4 Apply the procedure for computing capital gain 5 Discuss the procedure for the computation of tax for an individual
Management Accounting	1.Understand the various difference between financial and management accounting. 2 Classify the various types of financial statement analysis. 3 Apply the balance sheet ratios. 4 Explain the rules of schedule of changes in working capital. 5 Apply the Fixed and variable cost in marginal costing
Principles of Auditing	1 Understand the various objectives and qualities of an auditor. 2 Explain audit terminology and internal auditing in business. 3 Understand the verification and valuation of assets and liabilities 4 Explain the Audit of Joint Stock Companies 5 Understand the various objectives of investigation.
Executive Business Communication	1 Demonstrate modern communication methods 2 Apply different business letters for different situations 3 Apply an effective business correspondence with brevity and clarity. 4 Design agenda and prepare minutes for a meeting 5 Design application letter and apply the interview techniques
MICRO FINANCE	1 Explain the concept of micro finance 2 Understand the functions of micro entreprises 3 Understand the credit delivery methodology 4 Discuss the pricing of micro finance products 5 Gain knowledge on the features of commercial micro finance
Computer application Practical – II	1 To Prepare a Payroll for employee of an organization 2 Creating Mailing Labels 3 Creation of Table and Form

SNMV College of Arts & Science

	4 To understand the Creation of Company Group, vouchers and Ledger and Preparation of Final Accounts 5 To gain knowledge on search engines and mail creation

B.COM CS

Program Educational Objectives (PEOs)	
The B. COM CS program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Demonstrate ability to adapt to a rapidly changing environment by learning new skills and new competencies for application thereof
PEO2	Acquire the spirit of compassion, kinship and commitment for National Harmony
PEO3	Progressively adopt and learn continuously through ICT modules
PEO4	Enable the students to acquire professional qualification at the earliest
PEO5	Prepare young and Capable Company Secretaries and Professional for managing Corporate Organisation efficiently.
Program Specific outcome (PSOs)	
After the successful completion of B.COM CS program, the students are expected to	
PSO1	Inculcating analytical heart and mind to manage day- to- day business activities
PSO2	Solve the practical problems in the area of Company Administration and GST in conformity with the Societal, Legal and Cultural environment
PSO3	Understand the problems of Corporate sector and inculcate in the required skills for better Corporate Management.
PSO4	Be an active member of a corporate team with Leadership Attitude.
Program Outcomes (Pos)	
After the successful completion of B.COM CS program, the students are expected to	
PO1	Become knowledgeable in the subject of Corporate Laws and apply the principles of the same to the requirements of the Employer / Institution / Own Business or Enterprise.
PO2	Gain Analytical skills in the field/area of Accounting and Taxation
PO3	Understand and Appreciate Professional Ethics, Community Living and Nation Building Initiatives.
PO4	Capable of handling several departments in companies
PO5	Understanding and giving solutions to various Financial Problems
PO6	Able to identify and adopt compliance formalities in Company Administration

SNMV College of Arts & Science

B.COM CS	
B.COM CS	
Course Outcomes	
Courses	**Outcomes**
FINANCIAL ACCOUNTING – I	1.Recall the fundamental concepts of accounting and bookkeeping 2.Solve the errors in book keeping and identify the effect of BRS in an enterprise 3. Aware of Bills of exchange and its transaction, including Accommodation bills 4 To gain knowledge about the preparation of final Accounts 5. Understand the Account current statement and procedure for calculation of Average due date methods
BUSINESS MANAGEMENT	1.Discuss Nature and scope of Management process 2. Describe Planning and decision making process. 3. Explain Organization and organization structure. 4. Enumerate Theories of motivation and incentives. 5. Describe Co-ordination and control process. K3
MANAGERIAL ECONOMICS	1.To understand the basic concepts of managerial economics. 2. To know the economic goals of the firms and capital decision making. 3. To acquaint knowledge about the cost concepts and pricing policies methods 4. To find the effect of non – price factors on products and services of monopoly and oligopoly firms. 5. To understand the concepts profit management and the business cycle. K2
FINANCIAL ACCOUNTING-II	1. Acquire knowledge about self-balancing ledgers 2. To learn about depreciation and methods of depreciation 3. Prepare Branch accounts and departmental accounts 4. To gain knowledge about Non trading concern 5. To know the concept of statement of affairs and single entry system
LAW OF INSURANCE	1. Understand The Basic Principles Of Insurance Law 2. To learn about insurance and Claims Understand about life insurance and surrender value. 3. Acquire knowledge about marine and fire insurance. 4. Grasp knowledge about risk analysis, claims and recovery. 5. To learn about Ethics and Corporate Governance Framework for Insurance Companies
FUNDAMENTAL OF INFORMATION TECHNOLOGY	1.To acquire knowledge about word document creation, menu its usages. 2. To Gain knowledge about arithmetic and logical operations to prepare different type of chart, Final accounts mark sheet and bank customers statement. 3. To Understand to prepare different types of slides with animations and presentation of slides 4. To create database for employees, students, products and also create objects of query, forms and reports. 5. To create webpage and email id and to understand E-commerce
FINANCIAL ACCOUNTING-III	1. Acquire conceptual knowledge of Joint venture 2. Understand basic concepts of partnership accounts. 3. To learn about retirement and death of a partner 4. Gain knowledge about amalgamation and dissolution 5. Equip knowledge about insolvency of partners.

SNMV College of Arts & Science

COMMERCIAL LAW	1. To learn about nature and sources of law 2. Understand about free consent and capacity of contract 3. Identify contract remedies 4. Acquire knowledge about special contracts. 5. To know about Law relating to sale of goods Act.
COMPANIES AND SECRETARIAL PRACTICE-I	1. Understanding the various types of Companies and the issues associated with the Companies 2. Summarize Procedure for incorporation of the company. 3. Discuss Matters to be stated in the prospectus. 4. Analyze Sources of raising capital. 5. Define borrowing powers and legal charges.
BUSINESS MATHEMATICS	1. Apply the functions of mathematics in business 2. Remember the matrix and set functions 3. Understand the variables and constants 4. Acquire knowledge on derivations 5. Apply the basic functions of integrals
OFFICE ADMINISTRATION	1. Understanding the key concepts of office administration. 2. To learn about Delegation of authority. 3. Discuss Matters to be stated in the content of office system and office manual. 4. To know about office layout and its types 5. Acquire knowledge about filing a report.
CORPORATE ACCOUNTING-I	1. Enabling the students to understand the features of Shares. 2. Develop an understanding about redemption of Shares and Debenture and its types. 3. To give an exposure to the company final accounts 4. To provide knowledge on amalgamation of companies. 5. To get an idea about internal reconstruction
COMPANIES AND SECRETARIAL PRACTICE-II	1. Remember the basic levels of company 2. Identify the role of Directors, Kinds of Directors Application for DIN under Companies rules 2014 3. Evaluate the Corporate Governance, objectives, Need, Role of Auditors in Corporate Governance. 4. Understand the dividend, payment of dividend, dividend warrant. 5. Know the winding up procedures and Secretarial duties regarding winding up.
GENERAL LAWS	1. Explain Basic provisions of Companies meetings 2. Acquire knowledge about the Key managerial person 3. Understand the methods of appointment and removal of auditors 4. Enumerate Legal procedure for declaration and payment of dividend 5. To learn about winding of companies.
CORPORATE FINANCE	1. Understand the key themes in corporate finance, finance function and importance of finance 2. Analyze the relationship between strategic financial planning 3. Acquaint the knowledge on capital structure and leverage. 4. Understand the knowledge of financing and working capital Requirements. 5. Understand the key concepts of financial market
BUSINESS STATISTICS	1. Understand the basic concepts statistics and collection of data 2. Imparting knowledge on tabulation and presentation

SNMV College of Arts & Science

	3. Have a comprehensive knowledge on Central tendency 4. Acquire knowledge on correlation and regression analysis 5 Acquire knowledge on index numbers Mapping
PRACTICAL BANKING	1. Understand and explain the conceptual framework of banking 2. To learn about the functions of banks and types of customers. 3. To acquire knowledge on cheque and endorsement. 4. Illustrate the various electronic payment methods 5. Understand the concept of factoring and internet banking
COST ACCOUNTING	1. Explain Elements of cost and preparation of cost sheet and tenders. 2. Describe Procedure for preparation of Stores ledger Calculation of wages 3. Acquire knowledge about cost and financial accounting. 4. Demonstrate Classification and apportionment of overheads 5. Explain Unit costing, Job costing, Standard costing.
INDUSTRIAL LAW	1. Explain Factories Act, 1948 (health, safety and welfare measures) 2. Describe Industrial Disputes Act, 1947 (strikes, lock outs, layoff and retrenchment 3. illustrate Trade Union Act, 1926 and The Contract Labour (Regulation &Abolition) Act 1970 (growth, function, amalgamation and dissolution of trade union, welfare and health of contract labour) 4. Demonstrate Payment of Wages Act, 1936 & Minimum Wages Act 1948 minimum rate of wages, time of payment and responsibility of payment) CO3 5. Demonstrate the Workmen Compensation Act, 1923 (distribution of compensation, medical examination, notice and claim)
CORPORATE ACCOUNTING-II	1. To learn about holding company accounts. 2. Acquire knowledge about goodwill. 3. Prepare Liquidator's final statement of receipts and payments 4. Prepare Final accounts of Banking companies. 5. Prepare Final accounts of Insurance companies
TAXATION-I	1. Describe basic concepts of Income tax and Income Tax Act, 1961 and Determine Residential status 2. Describe Income tax provisions relating to computation of Income under the head salary, House property 3. To understand the Income tax provisions relating to computation of Income under the head Business and Profession. 4. To understand Income tax provisions relating to computation of Income under the head setoff and carry forward 5. Discuss Procedure for assessment
MS Office and Tally 2013Version (Practical)	1. Create mail merge, documents, templates and text formatting 2. Prepare worksheets and drawing graphs 3. Organize data and manipulate files 4. Create new slides and insert clip arts and pictures. 5. Learn to create company,voucher ledger and balance sheet and profit and loss account .
SECURITY LAWS AND FINANCIAL MARKET	1. To learn about financial market. 2. Explain Primary & Secondary Markets 3. Discuss about the new issue market. 4. Understand the concept of mutual fund. 5. Enumerate the knowledge about Depositories Act, 1996.

SNMV College of Arts & Science

CORPORATE LAWS	1. Acquaint the knowledge on Competition Act-2002. 2. To know about Environmental Laws. 3. To learn about theForeign Exchange Management Act, 1999 4. Understand the Patent Laws Trademarks, Copyright 5. To learn about the Consumer Protection Act, 1986.
MANAGEMENT ACCOUNTING	1. Explain Management accounting concepts and techniques for business decisions 2. Discuss Analysis and interpretation of financial statements 3. Prepare fund flow and cash flow statement. 4. Prepare Budget and budgetary control 5. To learn about concept of capital budgeting..
AUDITING	1. Understand Auditing advantages and disadvantages 2. To gain knowledge about the appointment and Qualification of auditor 3. To learn the rights and Duties of auditor 4. Acquaint the knowledge on Share capital and Audit report 5. To learn Audit of Computerised Accounts
MS OFFICE AND TALLY	1. To carry students to work with MS office 2. Perform efficiently using MS excel 3. Enable the student to prepare a PowerPoint presentation 4. Enable to learn the MS Access and how to prepare queries 5. Apply practical knowledge of the student should be able to work efficiently in Tally.
FINANCIAL MANAGEMENT	1. To Understand the financial functions and sources finance 2. To understand the cost of capital 3. To analyse the financial decision 4. To discuss the capital structure and determinants of dividend policy 5. To evaluate working capital structure and cash management
BUSINESS ENVIRONMENT	1. To gain knowledge about the concept and significance of Business environment 2. To acquire knowledge about ethical values. 3. To learn about global management issues in business 4. To study about fiscal policy and direct and indirect taxes 5. To know about the role of FEMA and SEBI in the business
GOODS AND SERVICES TAX (GST)	1. Explaining features of GST, various indirect taxes subsuming in GST, Constitutional amendment and benefits of GST 2. Provides information to understand the traders who are responsible to pay GST to State Government and exemptions 3. Regulates the procedure and time for registration of traders and provide awareness relates to exemption from registration 4. Demonstrate the documents which is necessity to filing regards outward goods, inward goods, annual returns and claims. 5. Defines about GST network and structure of e- filling.
MARKETING MANAGEMENT	1. To understand Principles of marketing management 2. To earn knowledge about Functions of marketing management 3. To acquire knowledge about Product life cycle 4. To study about marketing characteristics 5. To create knowledge about Brand decision
SECURITY MANAGEMENT	1. To learn about financial market. 2. Explain Primary & Secondary Markets

SNMV
College of Arts & Science

	3. Discuss about new issue market. 4. Understand the concept of mutual fund. 5. Enumerate the knowledge about Depositories Act, 1996.
ORGANIZATIONAL BEHAVIOUR	1. To understand the nature and types of Business Organisation 2. Develop an idea about the various sources of finance of a business. 3. Gain knowledge about the personality attributes OB 4. To analyse the decision making process. 5. To know about the power, policies and conflicts in a business organization.
INTRODUCTION TO INDUSTRY 4.0	1. To understand the technologies of Industry 4.0 2. To study about artificial intelligence 3. To enumerate Big data Analytics 4. To analyse the application IoT in manufacturing units
CORPORATE GOVERNANCE	1. To recall corporate governance and social ethics 2. To understand legal position and liabilities of Directors 3. To analyses company Audit 4. To discuss new companies bill and CII report 1998 5. To enumerate recent trends in E-Governance

B.COM E-COM

Program Educational Objectives (PEOs)	
The B.Com (E-commerce) program describes the accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To incorporate the knowledge of commerce and e-commerce well-designed areas that combine hands-on projects and applications that is vital for creating successful and competitive firms in order to develop a holistic organizational outlook
PEO2	To make students acquainted with technical, managerial and accounting concepts for understanding information systems to develop business processes and take managerial decisions there by gaining experience for developing basic Internet applications
PEO3	To learn the business models as an integral part for understanding the practical aspects of Ecommerce applications that can be helpful for building digital based applications to provide corporate as well as business solutions
PEO4	To discuss the concepts of e-commerce up-coming technologies in the wireless arena of business applications based on industry standards for the future trends in modern e-business application.
PEO5	To enhance the knowledge on visual based programming language and objectoriented language in different business applications using various design principles portraying the concepts of e-commerce applications in business activities.
Program Specific outcome (PSOs)	
The ability to understand, analyze and develop software programs in the areas related to system software, multimedia, online marketing,web design, application program, database , graphics and networking for efficient design of technology of varying complexity.	
PSO1	Know and apply the various accounting concepts to solve the accounting related business transactions.
PSO2	Acquire the knowledge on the e-commerce applications in various arenas of business.
PSO3	Solve the web applications related issues of e-business using web design tools, techniques and methods
PSO4	Analyze the real e-business problems by using the different applications and procedures oriented with language programs
PSO5	Enrich the practical knowledge on initiating new e-business ventures
Program Outcomes (Pos)	
This program could provide well trained professionals for the technology and allied industries to meet the well trained manpower requirements. The graduates will get hands on experience in various aspects of information technology viz. software updation,programme developers, software testing,BPO,web designer and ecommerce . The program will help the graduates to take up responsibilities in production, testing, designing and marketing in the information technologies and contribute for the growth of industry.	
PO1	Enhance knowledge on the theoretical and practical aspects of Accounts and Ebusiness. .

SNMV College of Arts & Science

PO2	PO2 Acquire the practical exposure on internet and web design applications to perform the e-business transactions
PO3	Get the training to learn how to develop and deploy successful performance

B.COM FINANCE

Program Educational Objectives (PEOs)	
The B.Com (Finance) program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Graduates will be well suited to work in financial services jobs in a variety of financial organizations including banks, investment companies and insurance companies.
PEO2	Applying the financial instruments in managing the risk of investing and hedging activity at the individual and the corporate level.
PEO3	Excel in contemporary knowledge of business and developing inclination towards lifelong learning.
PEO4	Possess wide spectrum of managerial skills along with competency building qualities in specific areas of business studies.
PEO5	An understanding of best practices and standards and their financial institutions.
Program Specific outcome (PSOs)	
After the successful completion of B.Com (Finance) program, the students are expected to	
PSO1	Students will demonstrate high-level proficiency in financial research and its global levels.
PSO2	Graduates are motivated in career and entrepreneurial skill development to become global leaders in area of business and financial sectors.
PSO3	Abet students to communicate effectively and to improve their competency skills to solve real time problems in the field of commerce and finance.
PSO4	Identify the fundamental concepts in mobile application development in the area of calculation of financial sectors
PSO5	Ability to design, implement domain knowledge of banking technologies for working of banker to customers.
Program Outcomes (Pos)	
On successful completion of the B.Com (Finance) program	
PO1	To determine and evaluate the current financial market needs, commercial referral leads and market fluctuations to develop prospective financial proposals to ensure and maintain excellent diplomacy in the competitive business etiquette.
PO2	To promote and undertake research to understand the financial markets, financial instruments and various investment objectives in the fast growing business era with the needed skills for limitless career success.
PO3	To groom professionals for attainment of competence with intellectual contributions and in depth knowledge in the profession of banking and finance that improves their application to promote continues professional development with limitless earning

SNMV College of Arts & Science

	potential
PO4	Have comprehensive knowledge of Finance, Accounting, Taxation and Business laws.
PO5	Demonstrate knowledge and understanding of business principles and financial advisor apply these to one's own work to manage multidisciplinary environments.

DEPARTMENT NAME	
DEPARTMENT OF B.COM FINANCE	
Course Outcomes	
Courses	**Outcomes**
Financial Accounting I	1.Understand the various methods of depreciation accounting in the books of accounts 2. Apply the various techniques of Preparation of Final Accounts of a Sole Trading Concern 3. Summarizing Bank Reconciliation Statement 4. Know the Depreciation accounting and methods 5. Understanding books of accounts relating to Single Entry system
Marketing	1.Recalling various terms and concepts relating to marketing 2. Understanding various forms and types of marketing 3. Evaluate the dimensions of consumer behavior 4. Differentiating specific components of marketing mix 5. Explaining the emerging trends in marketing and the regulatory mechanisms
BUSINESS ECONOMICS	1. Explain the basic concept of Business economics. 2. Understand the law of demand 3. Understand the cost concepts 4. To know the Market Structure 5. To study the National Income
Financial Accounting II	1. Implementing various methods of branch accounting in the books of accounts 2. Applying the various techniques of departmental accounts 3. Summarizing hire purchasing and installment accounts 4. Understanding about the Admission of a partner – Retirement of a partner. 5. Understanding the books of accounts relating to Dissolution of a partnership
Business Communication	1. To participate in an online learning environment successfully by developing the implication-based understanding of Paraphrasing, deciphering instructions, interpreting guidelines, discussion boards & Referencing Styles. 2. To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar. 3. Understanding various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization. 4. To draft effective business correspondence with brevity and clarity.

SNMV College of Arts & Science

	5. Apply their Critical thinking by designing and developing clean and lucid writing skills.
INDIAN ECONOMY	1. To study the Economic Development 2. Understand the new economic policy 3. Outline the Foreign Trade 4. To understand the Public Finance 5. Analyse the knowledge economy
Corporate Accounting	1. To understand the basic conceptual knowledge about the company and procedure for Issue, Forfeiture and Reissue of shares, 2. To understand the Redemption of preference shares and issue and redemption of debentures and Profit prior to incorporation 3. Preparation of final accounts of companies and calculation of managerial remuneration. 4. To Solve various methods of valuation of goodwill and shares. 5. To Understand the concept of alteration of share capital , internal reconstruction, capital reduction and procedure for capital reduction.
Investment Management	1. Recalling various alternatives of investment 2. Comparing the features of various investment markets 3. Analyzing investments using fundamental analysis 4. Applying technical analysis for evaluating investments 5. Creating an optimum portfolio for investment K6
COMMERCIAL LAW	1. To know about the essential elements of valid contract and its types 2. To understand the elements Consideration and Capacity to Contract 3. To understand the Discharge and remedies for breach of Contract 4. To gain knowledge about Contract of Indemnity and Guarantee 5. To understand the Law of Contract of Sale K2
COMPUTER APPLICATIONS PRACTICAL–I	1. Understanding the basics of working in MS-office using various tools 2. Generating personal bio data using MS word 3. Analyzing business transactions using excel 4. Apply excel tricks for the data analysis 5. Applying presentation skills in MS PowerPoint
BUSINESS MATHEMATICS	1. Understand the basic concepts of arithmetic and geometric series and different effective rates of interest for sinking fund, annuity and present value. 2. Know the basic concepts of addition and multiplication analysis and input and output analysis. 3. Aware of variables, constants and functions and evaluate the first and second order derivatives. 4. To gain knowledge on integral calculus and determining definite and indefinite functions. 5. Analyze the linear programming problem by using graphical solution and simple method.
Business Organization and Office Management	1. Recall the various forms of business organization 2. Understand the knowledge on Location of Business 3. Understand on office layout and accommodation. 4. To study the filing and Indexing 5. Apply the office communication in real time situation.
HIGHER CORPORATE ACCOUNITNG	1. To know the procedure and calculation regarding mergers 2. To understand the internal and external reconstruction of company

SNMV College of Arts & Science

	3. To prepare various schedules for Banking companies. 4. To understand the Preparation of Insurance Company accounts 5. To Prepare the Consolidation Balance Sheet of Holding Company K3
Business Management	1. To know the over view of basic principles and organizational activity in management 2. To understand the planning process and decision making using modern techniques 3. To understand in detail about the Organizing process 4. To understand the staffing and motivational techniques in management 5. To equip knowledge in Control Process and Communication
COMPUTER APPLICATIONS PRACTICAL II	1. Understanding the basics of working in MS-office using various tools 2. Generating personal bio data using MS access to Create a Student database 3. Analyzing business transactions using computerized packages 4. Analyzing Inventory Information – Stock Summary 5. Preparing the final accounts with the help of tally
Company Law	1. Understand the formation and kinds of companies. 2. Acquire knowledge on basic documents in a company and various methods of rising of capital. 3. Understand the provisions of Companies Act relating to meetings, resolutions and Company Management. 4. Understand the Issue of share, allotment and E filing of a Company 5. Understand about the methods of borrowings and registration
BUSINESS STATISTICS	1. Understand the basic concepts of arithmetic and geometric mean and different types of data collection. 2. Recall measures of dispersion. 3. Execute correlation and regression analysis. 4. Understand the Index Numbers 5. Analyze the Time series
ENTREPRENEURIAL DEVELOPMENT	1. Conceptualize the Entrepreneurship. 2. Make the students to aware the financial institutions. 3. To identify the business opportunities. 4. Gain the knowledge on Entrepreneurial Development Programme 5. Know about the entrepreneurial growth
Cost Accounting	1. Understand the different concepts and classification of costs and create cost sheet for the firms. 2. Gain the knowledge on different types of material controls. 3. Know the system of labour wage payment, labour turnover and classification of overhead. 4. Gain the knowledge on different types of process costing. 5. Understand Operating Costing, Contract costing, and Reconciliation of Cost and Financial accounts
INCOME TAX	1. Enumerate the basic principles of income tax 2. Know the various heads of Income 3. Understand the Income from other sources 4. Examines the Deductions from Gross total Income 5. Computation of tax liability of an individual K3
Financial Management	1. Define and identify the concepts of Financial management 2. Interpret financial statements for strategic decision making 3. Understand the working capital management

SNMV College of Arts & Science

	4. Understand the capital structure of a company 5. Apply the types of Captial Budgeting
Banking Theory law & Practices	1 Understand and explain the conceptual framework of banking 2. Classify and Demonstrate the types of deposit, cheques, loans and advances 3. To know the types of endorsements and kinds of crossing 4. To gain knowledge on Statutory protection of paying banker and collecting banker 5. To understand the lending policies of commercial banks
Principles of Auditing	1. Understand the basic auditing principles, concepts, planning an audit and due diligence. 2. Illustrate the steps required to perform Internal control and Internal check, Vouching and Verification and Valuation of Assets and Liabilities. 3. Gain expert knowledge on current auditing practices and procedures and apply them in auditing engagements as well as detection of frauds. 4. Understand the Qualification, Rights, Duties and Liabilities of an Auditor K2 5. Gain knowledge on Audit of computerized accounts K
FUNDAMENTALS TO INFORMATION TECHNOLOGY	1. Understand the basic concepts the computer 2. To know about the memory devices of computer. 3. To understand the input and output devices of computer. 4. Summarizing the different programming and machine level languages and steps to develop computer programmes. 5. Explain about operating systems, e-commerce, internet and extranet understand the uses of world wide web applications.
MANAGEMENT ACCOUNTING	1. Understand the nature and scope of Management accounting 2. Understand different types of Ratios and its applicability in financial analysis. 3. Familiarize the students with the concept of fund flow and cash flow statements and its preparations and working capital requirements 4. Application of Marginal costing technique in solving Management problems 5. To Know the methods of preparing Different types of Budgets.
Business Environment	1. Concept of Business Environment and its impact of business and strategic decisions. 2. To understand the Political and Legal Environment 3. To understand the Social – cultural Environment 4. To gain knowledge on Economic Environment 5. Impact of technology on globalization and Technology Management.
WORKING CAPITAL MANAGEMENT	1. Define and identify the concepts of working capital management 2. Understand the Money market instruments and Bank finance 3. To gain knowledge on Receivables, Cash and Inventory Management 4. Know the Instruments of international money market 5. Apply the concepts to Working Capital Control and Banking policy.
E- Commerce	1. Understand the basic concepts of IT 2. To gain the knowledge on e-mail and EDI. 3. To study the Electronic Commerce 4. To understand Future of Internet Commerce 5. Apply Business models and Internet applications. K3
Insurance	1. Define and identify the concepts of Indian Insurance Industry 2. To know the features and kinds of policies in Life &General Insurance

SNMV College of Arts & Science

	3. Understand the concepts of fire insurance contracts 4. Understand the Concepts of marine Insurance contracts 5. To gain knowledge on Miscellaneous Insurance such as motor, Crop, Cattle, Employer's Liabilities etc
Brand Management	1. Recall various concepts Basic understanding of brands 2. Understand the Brand Associations 3. Understand the Brand Impact on buyers 4. Analyze Brand Rejuvenation 5. Analyse the Designing and implementation of Brand Strategies
INDIRECT TAXES	1. Understand the basic principles underlying the Indirect Taxation Statutes 2. Understand the Levy and collection of Excise duty 3. Understand the concepts of VAT system in Tamilnadu 4. Understand the Customs and Import duties 5. Understand the Central Sales Tax Act 1956
FINANCIAL SERVICES	1. Keep students updated on the latest discourse on practical issues and policies in the new international financial environment. 2. Aims to help students to appreciate and understand how financial markets and institutions operate 3. To prepare students with a good understanding of the theoretical foundation of SEBI and Credit Rating 4. To gain knowledge on Mutual Funds and Merchant Banking 5. To understand the Factoring and Venture Capital in India
Organizational Behavior	1. Keep students updated on managerial implications of Organisational Behaviour 2. Understand the managerial implications of perception 3. Aims to help students to improve the personality , stress management and team decision making 4. Understand the approaches to managing organizational change 5. Prepare students with a good understanding of the organization culture
Industrial Law	1. Apply the Students will know the development and the judicial setup of Labour Laws 2. Apply cultural competency while exercising their legal skills. 3. Analyze an advanced understanding of the underlying legal principles, 4. Understand the rules and industrial which regulate trade union work relationships 5. Understand the industrial safety and welfare of workers
Indian Capital Market and Financial System	1. Recalling various alternatives of investment 2. Comparing the features of various investment markets 3. Analyzing investments in New issue Market 4. Analysis for Industrial Securities Market 5. Know the Recent trends in derivative markets in India.
Business finance	1. Recall various concepts relating to finance 2. Understand the various techniques of financial planning 3. Analyze various sources and forms of finance 4. Evaluate various dimensions of capital market and their components 5. Evaluating capitalization concept and related theories for decision making
PROJECT AND VIVA VOCE	1. Explain about how to collect literature. 2. Implement problem identification and will frame tool for collecting data 3. Evaluate and get practical exposure on the framed objective.

SNMV College of Arts & Science

	4. Execute and generate the procedure of compiling the collected data by using analysis 5. Summarize and execute report writing, and will get complete knowledge of the course.

BA ENGLISH

Program Educational Objectives (PEOs)	
PEO1	To prove competency in the domain knowledge/area and language proficiency
PEO2	Analyze the societal needs and issues through the literary perspective and to Practice lifelong learning for enhancing the ethical values of the society
PEO3	To develop efficiency in LSRW skills and present themselves as efficient language trainers
PEO4	To produce noble research works
PEO5	Improve their understanding about various socio- cultural aspects and find employment in media, freelance writing, content writing and teaching.
PEO6	Improve the possibilities of their employment in various sectors
PEO7	Understand the requirements of the industry and Prepare themselves to face the challenges of competitive environment

SNMV College of Arts & Science

Program Specific outcome (PSOs)	
PSO1	To demonstrate their competency in the domain area
PSO2	To analysis the literary texts, with a critical insight
PSO3	To impart the critical evaluation on the literary texts
PSO4	To present the learned ideas
PSO5	To assess their communicative competency
PSO6	To understand the role of a literature student in shaping the course of the society
PSO7	To analyze the impact of literature on the society
PSO8	To comprehend the ethical quality of a literary text
PSO9	To acquire the ability in understanding the lifelong learning

PSO10	To produce effective projects

Program Outcomes (Pos)

PO1	Prove their knowledge and skills in Language and Literature.
PO2	Prove his proficiency in Listening Speaking Reading Writing.
PO3	Analyze a literary text of any genre like poetry, drama, prose, short story and fiction.
PO4	Apply the knowledge of literary theories in analyzing the literary text.
PO5	Write simple poems, short stories and essays.
PO6	Work as a leader and work in a team effectively in the fields related to Language and Literature.
PO7	Understand the need for lifelong learning and hone the required skills related to the industry.
PO8	Analyze the impact of literature on society and work for the betterment of the society.

SNMV
College of Arts & Science

Course Outcomes	
Social History of England	To familiarize students with the main events, conflicts, inventions and rich history of Great Britain.
History of English Literature	To comprehend literary texts of ancient and modern literature written by great writers of English.
Literary Forms	To become technically strong in different genres like Lyric, Ballad, Elegy, Tragedy, Comedy, tragicomedy etc.
Literary Criticism	To acquire good knowledge with regard to the analysis of critical frameworks and methodologies for better interpretation of literature.
English Literature for Competitive Examinations	To be acquainted with glossary of literary terms.
British Literature	To acquire a sound comprehension of literary, societal, cultural, biographical and historical background of the greatest writings in British Literature.

American Literature	To get a better comprehension of literary, societal, cultural, biographical and historical background of the greatest writings in American Literature.
New Literatures in English	To obtain adequate information on colonization and post-war consequences through the literary, societal, cultural, biographical and historical background of the greatest writings in Commonwealth literature.
The English Language	To trace out the history of English Language and varied components of linguistic structures of the language.
Grammar for Communication	To gain knowledge on fundamental principles of English grammar including parts of speech, sentence types, sentence analysis, simple/compound/complex sentences, subject-verb agreement, pronoun usage, punctuation, capitalization etc.
Indian Writing in English	To learn the literary, societal, cultural, biographical and historical background of the greatest English writings penned by Indian Authors.
Indian Literature in English Translation	To know the basic principles in translation, issues faced by translators and the popularity gained through target language.
Project Work	The aim of the Project work is to acquire practical knowledge on the implementation of concepts studied through the programme.

SNMV
College of Arts & Science

UG

SCIENCE

SNMV

College of Arts & Science

BSC INFORMATION TECHNOLOGY

Program Educational Objectives (PEOs)	
The B. Sc. Information Technology program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To obtain in-depth knowledge of software and hardware techniques, which provide a compact foundation to pursue continuing education and nurture the talent for innovation and research.
PEO2	To Engage in the Information Technology related Profession locally and globally by contributing ethically to the competent and professional practices.
PEO3	To enable Graduates will be skilled in the use of modern tools for critical problem solving and analyzing industrial and societal requirements.
PEO4	To train the graduates in diversified and applied areas with analysis, design and synthesis of data to create novel products and solutions to meet current industrial and societal needs.
PEO5	To nurture talent in leadership qualities, at levels appropriate to their experience, which addresses issues in a responsive, ethical, and innovative manner.
Program Specific Outcome (PSOs)	
After the successful completion of B.Sc. Information Technology program, the students are expected to	
PSO1	Develop an ability to communicate effectively with a range of audiences. Develop written and oral presentations of information technology solutions appropriate for a wide range of audiences.
PSO2	Develop and analyze quality computer applications by applying knowledge of software engineering, algorithms, programming, databases and networking.
PSO3	The graduates of the Program will be prepared to achieve their career goals in the software industry or pursue higher studies and enhance their professional knowledge.
PSO4	To identify and utilize the state-of-the-art tools and techniques in the design and development of software products and solutions.
PSO5	Practical experience in shipping real world software, using recent industry standard tools and collaboration techniques will equip to secure and succeed in IT industry
Program Outcomes (POs)	
On successful completion of the B.Sc. Information Technology program	
PO1	**Disciplinary knowledge:** Capable to apply the knowledge of mathematics, algorithmic principles and computing fundamentals in the modeling and design of computer based systems of varying complexity.
PO2	**Scientific reasoning/ Problem analysis:** Ability to critically analyze, categorizes, formulate and solve the problems that emerges in the field of computer science.

SNMV College of Arts & Science

PO3	**Problem solving:** Able to provide software solutions for complex scientific and business-related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
PO4	**Environment and sustainability:** Understand the impact of software solutions in environmental and societal context and strive for sustainable development.
PO5	**Modern tool usage:** Use contemporary techniques, skills and tools necessary for integrated solutions.
PO6	**Ethics:** Function effectively with social, cultural and ethical responsibility as an individual or as a team member with positive attitude.
PO7	**Cooperation / Team Work:** Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.
PO8	**Communication Skills:** An ability to communicate effectively with diverse types of audience and also able to prepare and present technical documents to different groups.
PO9	**Self-directed and Life-long Learning:** Graduates will recognize the need for self-motivation to engage in lifelong learning to be in par with changing technology.
PO10	Enhance the research culture and uphold the scientific integrity and objectivity

SNMV
College of Arts & Science

Courses	Outcomes
Computing Fundamentals and C Programming	On the successful completion of the course, student will be able to: 1 Learn about the Computer fundamentals and the Problem solving 2 Understand the basic concepts of C programming 3 Describe the reason why different decision making and loop constructs are available for iteration in C 4 Demonstrate the concept of User defined functions, Recursions, Scope and Lifetime of Variables, Structures and Unions 5 Develop C programs using pointers Arrays and file management
Digital Fundamentals and Computer Architecture	On the successful completion of the course, student will be able to: 1 Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers. 2 Define the functions to simplify the Boolean equations using logic gates. 3 Understand various data transfer techniques in digital computer and control unit operations. 4. Compare the functions of the memory organization 5 Analyze architectures and computational designs concepts related to architecture organization and addressing modes
Programming Lab - C	On the successful completion of the course, student will be able to: 1 Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series (Program-1,2,3) 2 Apply the concepts to print the Magic square, Sorting the data, Strings, Recursive functions and Pointers (Program-4,5,6,8,10) 3 Remember the logic used in counting the vowels in a sentence (Program-7) 4 Apply and Analyze the concepts of Structures and File management (Program-9,11,12)
C++ PROGRAMMING	On the successful completion of the course, student will be able to: 1 Define the different programming paradigm such as procedure oriented and object-oriented programming methodology and conceptualize elements of OO methodology 2 Illustrate and model real world objects and map it into programming objects for a legacy system. 3 Identify the concepts of inheritance and its types and develop applications using overloading features. 4 Discover the usage of pointers with classes 5 Explain the usage of Files, templates and understand the importance of exception Handling
PROGRAMMING LAB - C++	On the successful completion of the course, student will be able to: 1 Define the different programming paradigm such as procedure oriented and object-oriented programming methodology and conceptualize elements of OO methodology 2 Illustrate and model real world objects and map it into programming objects for a legacy system. 3 Identify the concepts of inheritance and its types and develop applications using overloading features. 4 Discover the usage of pointers with classes

SNMV College of Arts & Science

	5 Explain the usage of Files, templates and understand the importance of exception Handling
Internet Basics	On the successful completion of the course, student will be able to: 1 Understand the fundamentals of Internet and the Web concepts 2 Explain the usage of internet concepts and analyze its components. 3 Identify and apply the online information resources 4 Inspect and utilize the appropriate Google Apps for education effectively
Professional English	1 Recognize their own ability to improve their own competence in using the language 2 Use language for speaking with confidence in an intelligible and acceptable manner 3 Understand the importance of reading for life 4 Read independently unfamiliar texts with comprehension 5 Understand the importance of writing in academic life Write simple sentences without committing error of spelling or grammar
Data Structures	On the successful completion of the course, student will be able to: 1 Understand the basic concepts of data structures and algorithms 2 Construct and analyze of stack and queue operations with illustrations 3 Enhance the knowledge of Linked List and dynamic storage management. 4 Demonstrate the concept of trees and its applications 5 Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations
Java Programming	On the successful completion of the course, student will be able to: 1 The competence and the development of small to medium sized application programs that demonstrate professionally acceptable coding 2 Demonstrate the concept of object-oriented programming through Java 3 Apply the concept of Inheritance, Modularity, Concurrency, Exception's handling and data persistence to develop java program 4 Develop java programs for applets and graphics programming 5 Understand the fundamental concepts of AWT controls, layouts and events
Programming Lab – JAVA	On the successful completion of the course, student will be able to: 1 Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding 2 Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping 3 Create data files and design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging. 4 Develop applications using Strings, Interfaces and Packages and applets 5 Construct Java programs using Multithreaded Programming and Exception Handling
Introduction to Web Design and Applications (Skill 1)	On the successful completion of the course, student will be able to: 1 Understand the fundamentals of electronic mail, web page installation and set up. 2 Understand the basics of internet, internet congestion, culture and WWW. 3 Understand the world wide web, searching in WWW, telnet and FTP. 4 Knowledge on basics of HTML, HTML tags, tables, frames, CSS and next generation HTML. 5 Knowledge on news groups, mailing list, chat rooms and MUDs

SNMV College of Arts & Science

Microprocessor & ALP (Allied 3)	After completion of this course, a student will be able to: 1. Describe the architecture of microprocessors 8085/8086, 386/486. Illustrate machine level instructions with timing diagrams 2. Knowledge of 8086 instruction set and its addressing and its assembly program too. 3. Demonstrate methods of accessing information in machine memory using direct or indirect addressing schemes, and describe various memory management schemes used in typical microcomputer systems including segmented and virtual memory. 4. Study of Motorola series processors architecture with its interface and convertors.
System Software and Operating Systems	On the successful completion of the course, student will be able to: 1 Know the program generation and program execution activities in detail 2 Understand the concepts of Macro Expansions and Gain the knowledge of Editing processes 3 Remember the basic concepts of operating system 4 Understand the concepts like interrupts, deadlock, memory management and file management 5 Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in DOS and UNIX operating system.
Linux and Shell Programming	On the successful completion of the course, student will be able to: 1 Describe the architecture and features of Linux Operating System and distinguish it from another Operating System. 2 Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration 3 Develop shell scripts using pipes, redirection, filters and Pipes 4 Apply and change the ownership and file permissions using advance Unix commands. 5 Build Regular expression to perform pattern matching using utilities and implement shell scripts for real time applications.
Programming Lab – LINUX and SHELL PROGRAMMING	On the successful completion of the course, student will be able to: 1 Develop Linux utilities to perform File processing, Directory handling and User Management 2 Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration 3 Develop simple shell scripts applicable to file access permission network administration 4 Apply and change the ownership and file permissions using advance Unix commands. 5 Create shell scripts for real time applications.
Business Accounting (Allied 4)	On the successful completion of the course, student will be able to: 1 Describe, explain, and integrate fundamental concepts underlying accounting 2 Use information to support business processes and practices 3 Knowledge of professional accounts, income & expenditure, receipts & payments

SNMV College of Arts & Science

Lab – HTML, XML, JAVASCRIPT (Skill 2)	On the successful completion of the course, student will be able to: 1 Understand the basics of java script, HTML and XML, programming statements and design web pages. 2 Understand and apply the XML programming constructs, DTD and develop applications. 3 Understand the world wide web, searching in WWW, telnet and FTP. 4 Knowledge on basics of HTML, HTML tags, tables, frames, CSS and next generation HTML.
RDBMS & Oracle	On the successful completion of the course, student will be able to: 1 Understand the basic concepts of Relational Data Model, Entity Relationship Model and process of Normalization 2 Understand and construct database using Structured Query Language (SQL) in Oracle9i environment. 3 Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions. 4 Understand and use built-in functions and enhance the knowledge of handling multiple tables 5 Attain a good practical skill of managing and retrieving of data using Data Manipulation Language (DML)
Visual Basic	On the successful completion of the course, student will be able to: 1 Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars. 2 Implement SDI and MDI applications using forms, dialogs and other types of GUI components. 3 Understand the connectivity between VB with MS-ACCESS database. 4 Implement the methods and techniques to develop projects. 5 Attain a good practical skill of managing ODBC and Data Access Objects
Programming Lab – VB & Oracle	On the successful completion of the course, student will be able to: 1 Understand the concepts of Visual Basic. 2 Learn the advantages of Controls in VB 3 Design and develop the event- driven applications using Visual Basic framework. 4 Apply the knowledge of database methods. 5 Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions
Animation Techniques (Elective I)	On the successful completion of the course, student will be able to: 1 Understand the basics of animation, need of animations, types of animation, techniques of animation and special effects. 2 Understand and apply animations in flash, working with time time-line and frame-based animations, tween-based animations and layers. 3 Knowledge on working with time-line, frame-based and tween-based animation. 4 Understanding the motion caption, software to capture the motion. 5 Apply the animation concepts and concept development to develop or create 3D animated movies.
Dot Net Programming (Skill 3)	On the successful completion of the course, student will be able to: 1 Understand the basics of .NET framework and the object-oriented programming. 2 Understand the procedures, File I/O, Error handling and Message queues.

SNMV College of Arts & Science

	3 Understand and remember the components in VB.NET IDE, ADO.NET and also the window forms. 4 Understand the HTML server controls, Web controls, Validation controls and state management and tracing. 5 Knowledge on SOAP, building web services and deploying and publishing web services, Finding and consuming web services.
Graphics &Multimedia	On the successful completion of the course, student will be able to: 1 Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle- Generating and Ellipse Generating. 2 Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques 3 Studies concepts of Multimedia Systems, Text, Audio and Video tools 4 Compressing audio and video using MPEG-1 and MPEG-2 5 Creates Animation with special effects using algorithms
Project Work Lab	On the successful completion of the course, student will be able to: 1 Formulate a real-world problem and develop its requirements develop a design solution for a set of requirements. 2 Test and validate the conformance of the developed prototype against the original requirements of the problem. 3 Work as a responsible member and possibly a leader of a team in developing software solutions. 4 Express technical ideas, strategies and methodologies in written form. Self-learn new tools, algorithms and techniques that contribute to the software solution of the project. 5 Generate alternative solutions, compare them and select the optimum one.
Programming Lab – Graphics & Multimedia	On the successful completion of the course, student will be able to: 1 Understand the basic concepts of computer graphics. 2 Design scan conversion problems using C and C++ programming. 3 Apply clipping and filling techniques for modifying an object. 4 Understand the concepts of different type of geometric transformation of objects in 2D. 5 Understand and develop the practical implementation of modeling, rendering, viewing of objects in 2D
Lab – DOT NET LAB	On the successful completion of the course, student will be able to: 1 Understand the basics of VB.NET and develop windows applications. 2 Understand the concept of tree view control and illustrate it the using 3 Understand and apply exception handling in VB.NET. 4 Understand menu resource and create application using menus. 5 Develop database applications in VB.NET.
PYTHON Programming (Elective II)	On the successful completion of the course, student will be able to: 1 Remembering the concept of operators, data types, looping statements in Python programming. 2 Understanding the concepts of Input / Output operations in file. 3 Applying the concept of functions and exception handling 4 Analyzing the structures of list, tuples and maintaining dictionaries 5 Demonstrate significant experience with python program development environment

SNMV College of Arts & Science

Internet of Things (Elective III)	On the successful completion of the course, student will be able to: 1 To understand the fundamentals of Internet of Things. K1 2 To know the basics of communication protocols and the designing principles of Web connectivity. 3 To gain the knowledge of Internet connectivity principles 4 Designing and develop smart city in IoT 5 Analyzing and evaluate the data received through sensors in IOT.

BSC COMPUTER SCIENCE

Program Educational Objectives (PEOs)	
The B. Sc. Computer Science program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To enrich knowledge in core areas related to the field of computer science and mathematics.
PEO2	To provide opportunities for acquiring in-depth knowledge in Industry 4.0/5.0 tools and techniques and there by design and implement software projects to meet customer's business objectives.
PEO3	To enable graduates to pursue higher education leading to Master and ResearchDegrees or have a successful career in industries associated with ComputerScience or as entrepreneurs
PEO4	To enhance communicative skills and inculcate team spirit through professionalactivities, skills in handling complex problems in data analysis and research project to make them a better team player.
PEO5	To embed human values and professional ethics in the young minds and contribute towards nation building.
Program Specific outcome (PSOs)	
After the successful completion of B.Sc. Computer Science program, the students are expected to	
PSO1	impart the fundamental principles and methods of Computer Science to a wide range of applications
PSO2	Develop and deploy applications of varying complexity using the acquired knowledge in various programming languages, data structures and algorithms, database and networking skills.
PSO3	To investigate, analyze complex problems by the application of suitable mathematical and research tools, to design Information Technology products and solutions
PSO4	To identify and utilize the state-of-the-art tools and techniques in the design and development of software products and solutions.
PSO5	ability to identify, interpret, analyze and design solutions using appropriate algorithms of varying complexities in the field of information and communication technology.
Program Outcomes (POs)	
On successful completion of the B.Sc. Computer Science program	

SNMV College of Arts & Science

PO1	Disciplinary knowledge: Capable to apply the knowledge of mathematics, algorithmic principles and computing fundamentals in the modeling and design of computer based systems of varying complexity.
PO2	Scientific reasoning/ Problem analysis: Ability to critically analyze, categorizes, formulate and solve the problems that emerges in the field of computer science.
PO3	Problem solving: Able to provide software solutions for complex scientific and business related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations
PO4	Environment and sustainability: Understand the impact of software solutions in environmental and societal context and strive for sustainable development.
PO5	Modern tool usage: Use contemporary techniques, skills and tools necessary for integrated solutions
PO6	Ethics: Function effectively with social, cultural and ethical responsibility as an individual or as a team member with positive attitude.
PO7	Cooperation / Team Work: Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.
PO8	Communication Skills: An ability to communicate effectively with diverse types of audience and also able to prepare and present technical documents to different groups.
PO9	Self-directed and Life-long Learning: Graduates will recognize the need for self-motivation to engage in lifelong learning to be in par with changing technology.
PO10	Enhance the research culture and uphold the scientific integrity and objectivity

SNMV
College of Arts & Science

BSC COMPUTER SCIENCE	
COMPUTER SCIENCE	
Course Outcomes	
Courses	**Outcomes**
Computing Fundamentals and C Programming	1 Learn about the Computer fundamentals and the Problem solving K2 2 Understand the basic concepts of C programming K2 3 Describe the reason why different decision making and loop constructs areavailable for iteration in C K3 4 Demonstrate the concept of User defined functions , Recursions , Scope andLifetime of Variables, Structures and Unions K4 5 Develop C programs using pointers Arrays and file management K3
Digital Fundamentals and Computer Architecture	1 Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers.K3 2 Define the functions to simplify the Boolean equations using logic gates. K1 3 Understand various data transfer techniques in digital computer and control unit operations.K2 4 Compare the functions of the memory organization K4 5 Analyze architectures and computational designs concepts related to architecture organization and addressing modes K5
Programming Lab – C	1 Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series (Program-1,2,3) K1, K2 2 Apply the concepts to print the Magic square, Sorting the data , Strings, Recursivefunctions and Pointers (Program-4,5,6,8,10) K2, K3 3 Remember the logic used in counting the vowels in a sentence (Program-7) K1 4 Apply and Analyze the concepts of Structures and File management (Program-9,11,12) K3&K4
C++ PROGRAMMING	1 Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodologyK1 2 Illustrate and model real world objects and map it into programming objects for a legacy system.K2 3 Identify the concepts of inheritance and its types and develop applications using overloading features.K3 4 Discover the usage of pointers with classes K4 5 Explain the usage of Files, templates and understand the importance of exception Handling K5

SNMV
College of Arts & Science

PROGRAMMING LAB - C++	1 Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodologyK1 2 Illustrate and model real world objects and map it into programming objects for a legacy system.K2 3 Identify the concepts of inheritance and its types and develop applications using overloading features.K3 4 Discover the usage of pointers with classes K4 5 Explain the usage of Files, templates and understand the importance of exception Handling
Internet Basics	1 Understand the fundamentals of Internet and the Web concepts K2 2 Explain the usage of internet concepts and analyze its components. K2 3 Identify and apply the online information resources K3 4 Inspect and utilize the appropriate Google Apps for education effectively K3,K5
Data Structures	1 Understand the basic concepts of data structures and algorithms K1-K2 2 Construct and analyze of stack and queue operations with illustrations K2-K4 3 Enhance the knowledge of Linked List and dynamic storage management. K2-K3 4 Demonstrate the concept of trees and its applications K2-K3 5 Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations K1-K4
Java Programming	1 The competence and the development of small to medium sized application programs that demonstrate professionally acceptable coding K1-K2 2 Demonstrate the concept of object oriented programming through Java K2-K4 3 Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling and data persistence to develop java program K3 4 Develop java programs for applets and graphics programming K3 5 Understand the fundamental concepts of AWT controls, layouts and events K1-K2
Programming Lab – JAVA	1 Understand the basic concepts of Java Programming with emphasis on ethics andprinciples of professional coding K1, K2 2 Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping K2 3 Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.K2, K3 4 Develop applications using Strings, Interfaces and Packages and

SNMV College of Arts & Science

	applets K3 5 Construct Java programs using Multithreaded Programming and Exception HandlingK3
Software Engineering and Software Project Management	1 Understand the basic concepts of software engineering K1 2 Apply the software engineering models in developing software applications K2-K3 3 Implement the object oriented design in various projects K4 4 Knowledge on how to do a software project with in-depth analysis. K3 5 To inculcate knowledge on Software engineering concepts in turn gives a roadmap to design a new software project. K1-K4
System Software and Operating Systems	1 Know the program generation and program execution activities in detail K1 2 Understand the concepts of Macro Expansions and Gain the knowledge of Editing processes K2-K3 3 Remember the basic concepts of operating system K1 4 Understand the concepts like interrupts, deadlock , memory management and file management K2 5 Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in DOS and UNIX operating system. K1-K4
Linux and Shell Programming	1 Describe the architecture and features of Linux Operating System and distinguish it from other Operating System.K1 2 Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration K2-K3 3 Develop shell scripts using pipes, redirection, filters and Pipes K2 4 Apply and change the ownership and file permissions using advance Unix commands.K3 5 Build Regular expression to perform pattern matching using utilities and implement shell scripts for real time applications.K3-K6
Programming Lab – LINUX and SHELL PROGRAMMING	1 Develop Linux utilities to perform File processing, Directory handling and User Management K1, K2 2 Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration K2-K3 3 Develop simple shell scripts applicable to file access permission network administration K3 4 Apply and change the ownership and file permissions using advance Unix commands. K4-K5 5 Create shell scripts for real time applications. K6
Lab – Software Project Management	1 Prepare a Project Plan with requirement analysis and specification. K1, K2 2 Understand and develop cost estimation model for real time applications. K2-K3 3 Implement the concepts of checkpoints in design phase K3 4 Analyze the Development phase of the database and text area of the applications. K4-K5 5 Create SDLC for real time applications. K6

SNMV College of Arts & Science

RDBMS & Oracle	1 Understand the basic concepts of Relational Data Model, Entity-Relationship Model and process of Normalization K1-K2 2 Understand and construct database using Structured Query Language (SQL) in Oracle9i environment. K1-K3 3 Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions. K1-K4 4 Understand and use built-in functions and enhance the knowledge of handling multiple tables K1-K3 5 Attain a good practical skill of managing and retrieving of data using Data Manipulation Language (DML) K2-K4
Visual Basic	1 Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars.K1 2 Implement SDI and MDI applications using forms, dialogs and other types of GUI components. K2 3 Understand the connectivity between VB with MS-ACCESS database. K3 4 Implement the methods and techniques to develop projects. K4 5 Attain a good practical skill of managing ODBC and Data Access Objects K2-K4
Programming Lab – VB & Oracle	1 Understand the concepts of Visual Basic. K1 2 Learn the advantages of Controls in VB K2 3 Design and develop the event-driven applications using Visual Basic framework. K3 4 Apply the knowledge of database methods. K4 5 Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions K6
PYTHON Programming	1 Remembering the concept of operators, data types, looping statements in Python programming.K1 2 Understanding the concepts of Input / Output operations in file.. K2 3 Applying the concept of functions and exception handling K3 4 Analyzing the structures of list, tuples and maintaining dictionaries K4 5 Demonstrate significant experience with python program development environment K4-K6
Computer Networks	1 Remember the organization of computer networks, factors influencing computer network development and the reasons for having variety of different types of networks.K1 2 Understand Internet structure and can see how standard problems are solved and the use of cryptography and network security. K2 3 Apply knowledge of different techniques of error detection and correction to detect and solve error bit during data transmission.K3 4 Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies K4 5 Knowledge about different computer networks, reference models and the functions of each layer in the models K2-K4
Organizational Behaviour	1 Demonstrate the applicability of the concept of organizational behavior to understand the behavior of people in the organization.K1

SNMV College of Arts & Science

	2 Develop Managerial skills for Individual Behaviors. K2 3 Analyze the complexities associated with management of the group behavior in the organization. Analyze how to manage the Stress during a job. K3 4 Develop an Organizational Behaviour model for any type of Organization. K3 5 Analyze the Common biases and eradication in Decision Making Process. K4
Software Testing	1 Explain the basic concepts and the processes that lead to software testing K2 2 Design test cases from the given requirements using Black box testing techniques K3 3 Identify the test cases from Source code by means of white box testing techniques K3 4 Know about user acceptance testing and generate test cases for it K4 5 Examine the test adequacy criteria to complete the testing process K4
Graphics & Multimedia	1 Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle- Generating and Ellipse- Generating.K2 2 Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques K3 3 Studies concepts of Multimedia Systems, Text, Audio and Video tools K3 4 Compressing audio and video using MPEG-1 and MPEG-2 K4 5 Creates Animation with special effects using algorithms K6
Project Work Lab	1 Formulate a real world problem and develop its requirements develop a design solution for a set of requirements. K3 2 Test and validate the conformance of the developed prototype against the original requirements of the problem.K5 3 Work as a responsible member and possibly a leader of a team in developing software solutions.K3 4 Express technical ideas, strategies and methodologies in written form. Self-learn new tools, algorithms and techniques that contribute to the software solution of the project. K1-K4 5 Generate alternative solutions, compare them and select the optimum one. K6
Programming Lab – Graphics & Multimedia	1 Understand the basic concepts of computer graphics. K1 2 Design scan conversion problems using C and C++ programming. K2 3 Apply clipping and filling techniques for modifying an object. K3 4 Understand the concepts of different type of geometric transformation of objects in 2D. K4 5 Understand and develop the practical implementation of modeling, rendering, viewing of objects in 2D K6
Network Security and Cryptography	1 Remember the basic concept of Cryptography and various types of attacks. K1 2 Understand about various types of protocols for Internet Security. K2

SNMV College of Arts & Science

	3 Implement various algorithms for Cryptography K3 4 Review Firewall and IP security K4 5 To be familiar with network security threats and countermeasure K3-K5
Artificial Intelligence and Expert Systems	1 Understand the nature of AI problems and task domains of AI. K1 2 Apply the appropriate search procedures to solve the problems by using best algorithms. K2 3 Analyze and select the suitable knowledge representation method. K3 4 Manipulate the acquired knowledge and infer new knowledge. K4 5 Demonstrate the development of AI systems by encoding the knowledge. K5
Web Technology	1 Understand and analyse the TCP/IP basics. K1 2 Understand Domain server name, FTP, TFTP, basics of WWW, web browser architecture. K2 3 Knowledge of Microsoft and java technologies, dynamic web pages, DHTML, ASP and JSP. K2-K3 4 Understanding active web pages, Java Applet, Java bean, CORBA, RMI and EDI architecture K2-K3 5 Knowledge on XML, XML parser, WAP K4-K6
Data Mining	1 Identify data mining tools and techniques in building intelligent machines understand K1-K2 2 Analyze various data mining algorithms in applying in real time applications. K2-K4 3 Demonstrate the data mining algorithms to combinatorial optimization problems K2-K3 4 Illustrate the mining techniques like association, classification and clustering on transactional databases.K2-K3 5 Perform exploratory analysis of the data to be used for mining. K3-K6
Open Source Software	1 Understand the significance of open source practices and guidelines. K2 2 Manipulate open source databases based on user requirements K3 3 Implement web programming with PHP K3 4 Integrate open source web frameworks in an application K4 5 Write desktop and web applications with Python K6
Internet of Things (IoT)	1 To understand the fundamentals of Internet of Things. K1 2 To know the basics of communication protocols and the designing principles of Web connectivity. K2 3 To gain the knowledge of Internet connectivity principles K2-K3 4 Designing and develop smart city in IoT K2-K3 5 Analyzing and evaluate the data received through sensors in IOT. K4-K5
Programming Lab – Software Testing	1 Understand the importance of software quality/software testing and apply software testing techniques for information systems development. K1 2 Generate test cases from software requirements using various test processes for continuous quality improvement. K2 3 Understand flow graphs and apply path testing. K3

SNMV College of Arts & Science

	4 Apply software testing techniques in commercial environments and assess the adequacy of test suites using control flow, data flow and program mutation. K4 5 Identify the inputs and deliverables of the testing process and work together as a team in preparing a report K6

BCA

Program Educational Objectives (PEOs)	
The BCA program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To impart advance knowledge about various sub-domains related to the field of computer applications
PEO2	To provide the strong character to uphold the spiritual and cultural values of our country to make students acceptable to both industries and higher education.
PEO3	Graduates will be capable of attaining higher position in their professional carrier, capable to do quality research by strengthening their mathematical, scientific and basic engineering fundamentals.
PEO4	Graduate will be capable of adopting the changing technologies, tools, and industrial environment.
PEO5	Graduates will promote collaborative learning and spirit of team work through multidisciplinary projects and diverse professional activities.
Program Specific outcome (PSOs)	
Graduates will promote collaborative learning and spirit of team work through multidisciplinary projects and diverse professional activities.	
PSO1	Develop proficiency in problem solving and logical thinking skill.
PSO2	To impart the knowledge of programming languages, web designing, networking and Software development cycle.
PSO3	To impart the knowledge of programming languages, web designing, networking and Software development cycle.
PSO4	Learn latest development and technologies in IT and Communications system.
PSO5	Implementation of professional engineering solutions for the betterment of society keeping the environmental context in mind, be aware of professional ethics and be able to communicate effectively.
Program Outcomes (POs)	
On successful completion of the BCA program	
PO1	Disciplinary knowledge: Capable to apply the knowledge of mathematics, algorithmic principles and computing fundamentals in the modeling and design of computer based systems of varying complexity.
PO2	Scientific reasoning/ Problem analysis: Ability to critically analyze, categorizes, formulate and solve the problems that emerges in the field of computer science.
PO3	Problem solving: Able to provide software solutions for complex scientific and business related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and

SNMV College of Arts & Science

	environmental considerations.
PO4	Environment and sustainability: Understand the impact of software solutions in environmental and societal context and strive for sustainable development.
PO5	Modern tool usage: Use contemporary techniques, skills and tools necessary for integrated solutions.
PO6	Modern tool usage: Use contemporary techniques, skills and tools necessary for integrated solutions.
PO7	Cooperation / Team Work: Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.
PO8	Cooperation / Team Work: Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.
PO9	Self-directed and Life-long Learning: Graduates will recognize the need for self-motivation to engage in lifelong learning to be in par with changing technology.
PO10	Enhance the research culture and uphold the scientific integrity and objectivity

DEPARTMENT NAME	
BCA	
Course Outcomes	
Courses	**Outcomes**
Core 1: Computing Fundamentals and C Programming	Learn about the Computer fundamentals and the Problem solving Understand the basic concepts of C programming Describe the reason why different decision making and loop constructs are available for iteration in C Demonstrate the concept of User defined functions , Recursions , Scope and Lifetime of Variables, Structures and Unions Develop C programs using pointers Arrays and file management
Core 2: Digital Fundamentals and Computer Architecture	To familiarize with different number systems and digital arithmetic & logic circuits To understand the concepts of Combinational Logic and Sequential Circuits To impart the knowledge of buses, I/O devices, flip flops, Memory and bus structure. To understand the concepts of memory hierarchy and memory organization To understand the various types of microprocessor architecture
Core Lab 1: Programming Lab – C	To practice the Basic concepts, Branching and Looping Statements and Strings in C programming To implement and gain knowledge in Arrays, functions, Structures, Pointers and File handling

SNMV College of Arts & Science

Core 3: C++ Programming	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology Illustrate and model real world objects and map it into programming objects for a legacy system Identify the concepts of inheritance and its types and develop applications using overloading features. Discover the usage of pointers with classes Explain the usage of Files, templates and understand the importance of exception Handling
Core Lab 2: Programming Lab – C++	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology Illustrate and model real world objects and map it into programming objects for a legacy system Identify the concepts of inheritance and its types and develop applications using overloading features Discover the usage of pointers with classes Explain the usage of Files, templates and understand the importance of exception Handling
Core Lab 3: Internet Basics	Understand the fundamentals of Internet and the Web concepts Explain the usage of internet concepts and analyze its components Identify and apply the online information resources Inspect and utilize the appropriate Google Apps for education effectively
Core 4: Data Structures	Understand the basic concepts of data structures and algorithms Construct and analyze of stack and queue operations with illustrations Enhance the knowledge of Linked List and dynamic storage management Demonstrate the concept of trees and its applications Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations
Core 5: Java Programming	The competence and the development of small to medium sized application programs that demonstrate professionally acceptable coding Demonstrate the concept of object oriented programming through Java Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling and data persistence to develop java program Develop java programs for applets and graphics programming Understand the fundamental concepts of AWT controls, layouts and events
Core Lab 4: Programming Lab – Java	Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding

SNMV College of Arts & Science

	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging Develop applications using Strings, Interfaces and Packages and applets Construct Java programs using Multithreaded Programming and Exception Handling
Skill based Subject 1 : Web Programming	Understand the basic concepts of Internet, WWW, browsers and Email and protocols Understand and apply the HTML, HTML elements and formatting styles Knowledge on creating tables, forms and DHTML Understand the structure of XML document, DTD and Schema Knowledge on working with SML, Style sheets and XSL
Core 6: System Software and Operating System	Know the program generation and program execution activities in detail Understand the concepts of Macro Expansions and Gain the knowledge of Editing processes Remember the basic concepts of operating system Understand the concepts like interrupts, deadlock , memory management and file management Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in DOS and UNIX operating system
Core 7: Linux and Shell Programming	Describe the architecture and features of Linux Operating System and distinguish it from other Operating System Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration Develop shell scripts using pipes, redirection, filters and Pipes Apply and change the ownership and file permissions using advance Unix commands Build Regular expression to perform pattern matching using utilities and implement shell scripts for real time applications
Core Lab 5: Linux and Shell Programming Lab	Develop Linux utilities to perform File processing, Directory handling and User Management Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration Develop simple shell scripts applicable to file access permission network Administration Apply and change the ownership and file permissions using advance Unix commands Create shell scripts for real time applications
Skill based subject 2 (lab) : Web Programming - Lab	Understand the problems and create applications in basics of web programming Understand and develop Web pages with formatting styles Apply the features in HTML to present the details given

SNMV College of Arts & Science

	Analyze the problem, apply the concept for developing applications Create web sites of real time applications
Core 8: RDBMS & Oracle	Understand the basic concepts of Relational Data Model, Entity- Relationship Model and process of Normalization Understand and construct database using Structured Query Language (SQL) in Oracle9i environment Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions Understand and use built-in functions and enhance the knowledge of handling multiple tables Attain a good practical skill of managing and retrieving of data using Data Manipulation Language (DML)
Core 9: Visual Basic	Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars Implement SDI and MDI applications using forms, dialogs and other types of GUI components Understand the connectivity between VB with MS-ACCESS database Implement the methods and techniques to develop projects Attain a good practical skill of managing ODBC and Data Access Objects
Core Lab 6: Programming Lab – VB & Oracle	Understand the concepts of Visual Basic Learn the advantages of Controls in VB Design and develop the event- driven applications using Visual Basic framework Apply the knowledge of database methods Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions
Elective-I PHP & Scripting Language	Understand the basics of .VB script and Java script Understand the I/O handling, data validation, Activex control and validation Understand and remember the java script objects, form validations, cookies and plugins Understand the sever side scripting language basics Knowledge on PHP objects, cookies, connecting remote files, and database connections
CASE Tools Concepts and Applications	Understand the basic concepts of software engineering Apply the software engineering models in developing software applications Implement the object oriented design in various projects Knowledge on how to do a software project with in-depth analysis To inculcate knowledge on Software engineering concepts in turn gives a roadmap to design a new software project
Core 10: Graphics & Multimedia	Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle- Generating and Ellipse-Generating Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques

SNMV College of Arts & Science

	Studies concepts of Multimedia Systems, Text, Audio and Video tools Compressing audio and video using MPEG-1 and MPEG-2 Creates Animation with special effects using algorithms
Core 11: Project Work Lab %%	Formulate a real world problem and develop its requirements develop a design solution for a set of requirements Test and validate the conformance of the developed prototype against the original requirements of the problem Work as a responsible member and possibly a leader of a team in developing software solutions Express technical ideas, strategies and methodologies in written form. Self-learn new tools, algorithms and techniques that contribute to the software solution of the project Generate alternative solutions, compare them and select the optimum one
Core Lab 7: Programming Lab – Graphics & Multimedia	Understand the basic concepts of computer graphics Design scan conversion problems using C and C++ programming Apply clipping and filling techniques for modifying an object Understand the concepts of different type of geometric transformation of objects in 2D Understand and develop the practical implementation of modeling, rendering, viewing of objects in 2D
Elective-II : Computer Networks	Remember the organization of computer networks, factors influencing computer network development and the reasons for having variety of different types of networks Understand Internet structure and can see how standard problems are solved and the use of cryptography and network security Apply knowledge of different techniques of error detection and correction to detect and solve error bit during data transmission Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies Knowledge about different computer networks, reference models and the functions of each layer in the models
Elective-III : Software Testing	Explain the basic concepts and the processes that lead to software testing Design test cases from the given requirements using Black box testing techniques Identify the test cases from Source code by means of white box testing techniques Know about user acceptance testing and generate test cases for it Examine the test adequacy criteria to complete the testing process
Skill based Subject 4 (lab) : CASE Tools Lab	Prepare the CASE tools for the given specification Understand and develop the UML diagram for real time applications

SNMV College of Arts & Science

	Design the real time test cases Analyze the development of CASE tools Design the CASE tools and generate VB code

BSC MATHS CA

Program Educational Objectives (PEOs)	
PEO1	Acquire knowledge in functional areas of Mathematics and apply in all the fields of learning.
PEO2	Recognize the need for lifelong learning and demonstrate the ability to explore some mathematical content independently.
PEO3	Recognise the need for lifelong learning and demonstrate the ability to explore some mathematical content independently.
PEO4	Develop critical thinking,creative thinking, self confidence for eventual success in career
PEO5	Analyze, interpret solutions and to enhance their Entrepreneurial skills, Managerial skills and leadership.
Program Specific outcome (PSOs)	
PSO1	Maintain a core of mathematical and technical knowledge that is adaptable to changing technologies and provides a solid foundation for extended learning.
PSO2	Identify the applications of Mathematics in other disciplines and society.
PSO3	Develop anin-depth knowledge inMathematics appreciating the connections between theory and its applications.
PSO4	Develop anin-depth knowledge inMathematics appreciating the connections between theory and its applications.
PSO5	Students are equipped to appear competitive examinations.
Program Outcomes (POs)	
Students are empowered with analytical and logical skills to formulate results and construct mathematical argument.	

SNMV College of Arts & Science

DEPARTMENT OF MATHEMATICS	
DEPARTMENT NAME	
Course Outcomes	
Courses	**Outcomes**
B.Sc Maths(CA)	Know about the concept of Binomial ,Exponential , Logarithmic series and their application to summation of series.
	Identify areas in Mathematics and other fields where Calculus is useful
	On the successful completion of the course, student will be able to: Demonstrate the understanding of continuity, uniform continuity, compactness connectedness.
	On the successful completion of the course, student will be able to: Communicate and understand mathematical ideas and results with the correct use of mathematical definitions, terminology and symbols
	On the successful completion of the course, student will be able to: Familiarize with basics of the Internet Programming Gain knowledge about Java fundamentals, operators and statements
	On the successful completion of the course, student will be able to: Know the principles and applications of information theory

SNMV College of Arts & Science

BSC BT

Program Educational Objectives (PEOs)	
Have enormous opportunities to become an effective researcher in the field of Life sciences.	
PEO1	Have enormous opportunities to become an effective researcher in the field of Life sciences.
PEO2	Acquire skills to face Various Government competitive exams viz., TNPSC, UPSC and SSC etc.,
PEO3	Become socially responsible with morel and intellectuals.
PEO4	Become an entrepreneur and product developer.
PEO5	Graduates will empower skills to meet the global challenges through current teaching learning methodologies.
Program Specific outcome (PSOs)	
After the successful completion of B.Sc., Biotechnology program, the students are expected to	
PSO1	Graduates acquire Problem solving ability- solving social issues and engineering problems
PSO2	Graduates will develop interest in lifelong learning.
PSO3	Graduates develop an ability to design and conduct experiments
PSO4	Graduates will be enriched with skill based practical which aid them to become self employed
PSO5	Graduates will obtain requisite knowledge on the structure, function and applications of living organisms and thereby explore it in academia and industry
Program Outcomes (POs)	
On successful completion of the B. Sc. Biotechnology program,	
PO1	The students should be able to demonstrate proficiency in basic science and fundamental biotechnological tools
PO2	The graduates could understand the working principles of advanced biological sciences
PO3	The graduates acquire employability skills in the field of Pharma, food and agricultural industries
PO4	The graduates get motivated towards deep learning, higher studies and research in life sciences
PO5	The graduates develop health and environment awareness towards social responsibility

SNMV College of Arts & Science

BSC MB

Program Educational Objectives (PEOs)	
The B.Sc., Microbiology program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Active and Principal
PEO2	Resourceful educator
PEO3	Administrative / Executive official
PEO4	Leadership excellence
PEO5	Intellectual adeptness in various perceptions
Program Specific outcome (PSOs)	
After the successful completion of B.Sc., Microbiology, the students are expected	
PSO1	Isolate and identify the microorganisms including bacteria, fungi and algae.
PSO2	To get acquainted knowledge about the taxonomical classification of microorganisms.
PSO3	Acquire knowledge about modern microbiological techniques and bioinstrumentation which make them competent to be placed in various Microbiological / Biotechnological industries.
PSO4	Attain practical exposure during the institutional training.
PSO5	Gain the knowledge of clinical investigation and diagnosis of various infectious diseases.
Program Outcomes (POs)	
On successful completion of the B.Sc., Microbiology programme	
PO1	Acquire eligibility for higher studies / technical and administrative placement in government and private sectors.
PO2	Attain competency to be placed in various Microbiological / Biotechnological industries.
PO3	Obtain technical experience to become an entrepreneur by institutional training internship.
PO5	Acquaint and establish equilibrium of nature and in fact create a fit biosphere with the knowledge of Microbiology.

SNMV College of Arts & Science

DEPARTMENT NAME	
DEPARTMENT NAME: MICROBIOLOGY	
Course Outcomes	
Courses	**Outcomes**
FUNDAMENTALS OF MICROBIOLOGY	On the successful completion of the course, student will be able to: 1 Get acquainted with contributions of various scientists. K 1 2 Gain knowledge about microscopy. K 2 3 be trained with staining techniques to observe microorganisms. K 3 4 be familiar with principles and methods of sterilization. K 4 5 Identify and cultivate microbes in the laboratory. K 5
ANALYTICAL MICROBIOLOGY	On the successful completion of the course, student will be able to: 1 Get acquainted with properties of bio molecules. K 2 2 Gain knowledge about different instruments in microbiological laboratory K 2 3 Understand the harvesting and preserving microbes. K 3 4 Estimate the biomolecules and microbial growth. K 4 5 Separate and identify the bio molecules using chromatographic techniques. K 5
GENERAL BIOLOGY	On the successful completion of the course, student will be able to: 1 Provide knowledge about the structure and function of Prokaryotic cells. K 2 2 Acquire knowledge about the structure and function of Eukaryotes. K 2 3 Impart knowledge on cell division in Prokaryotes and Eukaryotes. K 3 4 Understand basis of plant kingdom K 4 5 Acquire knowledge about human physiology. K
MICROBIAL DIVERSITY	Know about basics of microbial classification, taxonomy and their modern approaches. K 2 2 Gain knowledge about major divisions of Bergey's Manual of Systematic Bacteriology. K 4 3 Explore the taxonomy, characters, life cycle and economic importance of Fungi. K 3 4 Know about the morphology, characters, reproduction and economic importance of Algae. K 3 5 Understand the basic structural characterization of Protozoa and its classification K

SNMV
College of Arts & Science

MICROBIAL PHYSIOLOGY	On the successful completion of the course, student will be able to: 1 Distinguish the Microorganisms based on their nutritional requirements and transport mechanisms of nutrients uptake. K 2 2 Gain knowledge about growth and key factors influencing the growth ofmicroorganisms K 3 3 Understand about key metabolic and biosynthetic pathways carried out in microorganisms. K 2 4 Acquire the knowledge about aerobic and anaerobic respiration of microorganisms. K 4 5 Be acquainted with anabolism
MICROBIAL GENETICS	Know about basics structure of DNA and RNA, and Organization of genes in prokaryotes & Eukaryotes. K 2 2 Gain knowledge about replication in Prokaryotes & Eukaryotes and role of enzymes in replication. K 4 3 Understand the gene expression by Translation and Transcription process and regulation of gene expression. K 4 4 Know about the Mutation, their types and repair mechanism K2 & K3 5 Understand the Genetics exchanges in microbes K2
PRINCIPLES OF IMMUNOLOGY	On the successful completion of the course, student will be able to: 1 Understand the basics of Immunology and defense mechanisms. K 2 2 Gain knowledge about immunity types and function of immunoglobulins. K 2 3 Create awareness about hypersensitivity and immunodeficiency disease. K 3 & K 4 4 Know about the autoimmune diseases and monoclonal antibodies. K 2 & K3 5 Gain knowledge about application of Immunohaematology. K 3 & K4
FOOD MICROBOLOGY	On the successful completion of the course, student will be able to: 1 Understand the role of Microbes in food. K 2 2 Familiarize the preservation techniques in food. K 2 & K3 3 Create awareness about spoilage of food by microbes. K 3 & K 4 4 Gain acquaintance about fermented foods. K 3 & K 4 5 Get the knowledge about food borne diseases and their outbreaks. K 4
MEDICAL MICROBIOLOGY	On the successful completion of the course, student will be able to: 1 Gain the basic knowledge about infections, outbreaks and control measures. K 2 & K3 2 Understand the pathogenicity of Gram positive bacterial pathogens. K 2 & K3

SNMV
College of Arts & Science

	3 Understand the pathogenicity of Gram negative bacterial pathogens. K 2 & K3 4 Understand the pathogenicity of Acid Fast and miscellaneous bacteria. K 2 & K3 5 Gain the basic knowledge about fungal and parasitic infections. K 2 & K3
INDUSTIAL MICROBIOLOGY	On the successful completion of the course, student will be able to: 1 Gain the basic knowledge about infections, outbreaks and control measures. K 2 & K3 2 Understand the pathogenicity of Gram positive bacterial pathogens. K 2 & K3 3 Understand the pathogenicity of Gram negative bacterial pathogens. K 2 & K3 4 Understand the pathogenicity of Acid Fast and miscellaneous bacteria. K 2 & K3 5 Gain the basic knowledge about fungal and parasitic infections. K 2 & K3
VIROLOGY	On the successful completion of the course, student will be able to: 1 Gain the basic knowledge about infections, outbreaks and control measures. K 2 & K3 2 Understand the pathogenicity of Gram positive bacterial pathogens. K 2 & K3 3 Understand the pathogenicity of Gram negative bacterial pathogens. K 2 & K3 4 Understand the pathogenicity of Acid Fast and miscellaneous bacteria. K 2 & K3 5 Gain the basic knowledge about fungal and parasitic infections. K 2 & K3
CORE PRACTICAL-1	On the successful completion of the course, student will be able to: 1 Gain the basic knowledge about infections, outbreaks and control measures. K 2 & K3 2 Understand the pathogenicity of Gram positive bacterial pathogens. K 2 & K3 3 Understand the pathogenicity of Gram negative bacterial pathogens. K 2 & K3 4 Understand the pathogenicity of Acid Fast and miscellaneous bacteria. K 2 & K3 5 Gain the basic knowledge about fungal and parasitic infections. K 2 & K3
CORE PRACTICAL-11	The main objectives of this course are to: • expertise in estimation of various biomolecules. • measure morphological and population size of microbes. • acquire knowledge about the physiological characteristics of microorganisms. • screen the enzymatic potential of microorganisms. • understand the morphological characters of Algae, Fungi and Parasite
CORE PRACTICAL – III	The main objectives of this course are to: • Acquire knowledge about isolation and identification of DNA. • Evaluate the microorganisms involved in food

SNMV College of Arts & Science

	spoilage. • Expose the screening and production mechanism of commercially important fermented products. • Apply the new approach in laboratory diagnosis of mycotic infections. • Assess the quality of drinking water from various source
RECOMBINANT DNA TECHNOLOGY-ELECTIVE PAPER	On the successful completion of the course, student will be able to: 1 Gain the basic knowledge about role of enzymes in Gene manipulation. K 2 & K3 2 Understand the Gene isolation techniques. K 2 & K4 3 Understand the uses of Vectors in rDNA technology K 2 & K3 4 Gain knowledge about Gene transfer techniques. K 2 & K3 5 Understand the Blotting techniques. K 3 & K4

BSC CHEMISTRY

SNMV College of Arts & Science

Program Educational Objectives (PEOs)	
The **B. Sc. Chemistry** program describe accomplishments that graduates are expected to attain within five to seven years after graduation.	
PEO1	To produce efficient chemistry graduates with strong fundamentals in various fields of chemistry
PEO2	To make students capable to assess and relate issues to environmental and practice it with integrity and ethics
PEO3	To provide an in-depth knowledge in chemistry and enable them with tools needed for industrial applications
PEO4	To integrate the inter-disciplinary knowledge of physics, mathematics or biological sciences to wide variety of fields
PEO5	To develop the ability to communicate the scientific information in written and oral formats
PEO6	To inculcate leadership qualities and mold them as good team players to function effectively in multidisciplinary teams
Program Specific outcome (PSOs)	
After the successful completion of **B. Sc. Chemistry** program, the students are expected to	
PSO1	Apply chemistry knowledge to solve the problems in various areas.
PSO2	Acquire a skill for safe handling of chemicals, apparatus and instruments
PSO3	Identify and analyze problems and gain skills to interpret chemical information
PSO4	Gain practical knowledge and analytical skills in designing and carrying out chemical experiments

PSO5	Have enough chemistry knowledge to go for higher studies and become entrepreneur
Program Outcomes (POs)	
On successful completion of the **B. Sc. Chemistry** program	
PO1	Understand the chemistry and apply their knowledge in day-to-day life
PO2	Explore the knowledge of analytical techniques to the industries for various analysis
PO3	Develop skills to carry out experiments in various fields of chemistry
PO4	Identify, formulate and solve the technological problems of the industry
PO5	Apply their theoretical knowledge to make the common people to understand the chemistry behind every chemical changes.
PO6	Confidence with skills and techniques necessary to succeed in the competitive examinations

DEPARTMENT NAME	
CHEMISTRY	
Course Outcomes	
Courses	**Outcomes**
13A GENERAL CHEMISTR - I	On the successful completion of the course, student will be able to: 1 Understand the properties of period and groups in periodic table 2 Able to name the hydrocarbons and Identify the products of elimination and addition r 3 Discuss the various polar effects in alkanes and alkenes. Describe the preparation of cycloalkanes 4 Explain the theory of black body radiation 5 Understand the first and second law of thermodynamics
23A GENERAL CHEMISTRY-II	On the successful completion of the course, student will be able to: 1.Understand the principles of volumetric analysis and estimate an unknown ion. 2. Outline the structure and properties of boron and silicate compounds 3. Explain the aromatic electrophilic substitution and aliphatic nucleophilic substitution reactions with mechanism. 4. Understand the relation between thermodynamic properties 5.Understand the packing and structure of crystals
23P INORGANIC QUALITATIVE ANALYSIS	On the successful completion of the course, student will be able to: 1 Do preliminary tests and identify interfering and non-interfering radicals and confirm their presence 2 Remove interfering anions, carry out a systematic analysis and identify the cations in a given sample
33A INORGANIC CHEMISTRY-I	On the successful completion of the course, student will be able to: 1. Explain various chemical and electrochemical principles involved in the extraction of metals. 2.Make use of the occurrence and extraction of important metals and their compounds 3.Understand and explain the various theories of coordination compounds and stability of metal complexes 4.Define the terms EAN rule classify the organometallic compounds, structure and properties of organometallic compounds 5.Describe the structure & functioning of biomolecules and role of metals in biology
33B PHYSICAL CHEMISTRY-I	On the successful completion of the course, student will be able to: 1.Understand the concepts of thermodynamics, Second law, and Entropy change. 2.Understand the Spontaneity and its conditions, Gibb's free energy and knowledge of third law. 3.Understand the concepts of Phase rule and its applications to various systems. 4. Know the different laws of solutions and evaluate the Colligative properties 5. Understand the C-Program and evaluate the various parameters.

SNMV College of Arts & Science

3ZA CHEMISTRY OF NATURAL AND SYNTHETIC FIBERS	On the successful completion of the course, student will be able to: 1.To understand the classification, properties and uses of natural fibers. 2. Able to know about the chemical structure of cellulose fiber. Wet spinning process. 3.Discuss about synthetic and acrylic fiber. Detail about fiber forming polymer and schio process. 4. Explain the naming reaction of nylon fiber. Explanation of structure and uses of Kevlar fiber. 5.Discuss about polyester fiber. Synthesis of DMT, ethylene glycol and PET
43A ORGANIC CHEMISTRY-I	1.Know the knowledge of Preparation and Properties of Carbonyl Compounds. 2.Understand the mechanism of certain name reactions. 3.Understand the concepts of active Methylene compounds and Geometrical isomerism of certain organic compounds. 4. Know the classification of Phenols, Preparation of phenolic compounds with chemical properties 5.Know the concepts of amines, types, separation and their basic nature
43P VOLUMETRIC AND ORGANIC ANALYSIS	1.Estimate the amount of ion present in the given solution through volumetric analysis both by direct and indirect method 2.Find the groups/elements and characters present in the given organic substance through qualitative analysis and prepare a suitable derivative
4ZB TECHNOLOGY OF DYEING OF NATURAL FIBERS	1.Understand the basic aspects of yarns, it's classification and systematic approach to the applied aspects of twisting of yarns. 2.Equip with the knowledge of spinning and it's application of fibers after blending with synthetic polymers. 3.Work with various practical aspects of spin finish of textile fibers. 4.Understand the knowledge of dying synthetic fibers and boost their confidence to cater the needs of textile industry and market 5.Explain, discuss and understand the eco-friendly aspects of dying with a special reference to dyes.
53A INORGANIC CHEMISTRY-II	1.Rationalise the conductivity of metals, semiconductors along with its applications. 2.Understand the types of nuclear reactions and its importance in generation of electricity 3.Acquire enormous knowledge on uses of isotopes and radioactive substances. 4.Understand the terms - ligand, chelate, coordination number and various types of isomerism possible in coordination compounds 5.Outline the importance of solvents and solubility in chemical reactions
53B SPECTROSCOPY	1.Gain the knowledge of different electromagnetic radiations, basic concepts, instrumentation and applications of UV-Visible spectra. 2.Know different types of vibrational frequencies, comparison between IR and Raman spectroscopy as well as their applications 3.Study the basic principles, instrumentation and applications of NMR spectroscopy pertaining to some simple organic compounds 4.Acquire the knowledge on the basic concepts, instrumentation and applications associated with ESR. 5.Understand the different concepts of mass spectrometry along with the determination of molecular formula.

SNMV College of Arts & Science

53C ELECTRO CHEMISTRY	1.Describe the principle of solubility product and relate the pH of a solution containing a mixture of the two components to the acid dissociation constant, Ka 2.Understand the difference between metallic conductance & electrolytic conductance 3.Recognize the different types of electrochemical cells and calculate the cell potential from standard cell potential 4.Distinguish between cells and use the Nernst equation for calculating EMF of a cell. 5.Understand the working principles of fuel cells, storage cells and battery design
53D ANALYTICAL CHEMISTRY	1.Understand the principles of various analytical techniques and their applications 2.Evaluate different types of errors and correct them. 3.Perform various tests for set of analytical data 4.Understand the theory of quantitative analysis 5.Determine an analyte quantitatively using gravimetric methods
5ZC WATER&EFFLUENT TREATMENT AND POLLUTION CONTROL	1.To understand urbanization and biodiversity along with environmental pollution. 2.Acquires the knowledge about water pollution and water softening methods 3.Importance about water analyzing methods along with determination of BOD, COD and toxicity 4.Detail explanation of primary, secondary and tertiary water treatment methods. 5.Discuss about effect of noise pollution along with brief study on modern methods for pollution analysis.
5EA POLYMER CHEMISTRY	1.Classify Polymers based on their origin, mechanism of formation, citing example. Understand the methods of preparation process and apply the - correct method of preparation for a particular polymer 2.Analyze the reaction mechanisms of polymerization. 3.Understand the relation between the bond forces and structural properties of polymers. 4.Understand the principles behind the molecular determination methods and applying them to calculate the different molecular weights of polymers. 5.Explain the basic preparation methods and have a good knowledge on the Industrial Applications of Polymers.
63A ORGANIC CHEMISTRY-II	1.Gain the knowledge on different types of optically active molecules and their naming methods 2.Understand the mechanisms of inter and intramolecular rearrangement reactions with examples. 3.Acquire the knowledge on the preparation, properties and uses of heterocyclic compounds, amino acids and proteins. 4.Know the classification, structural elucidation and synthesis of terpenoids and vitamins. 5.Understand the different types and structural elucidation of alkaloids and harmones.
63B PHYSICAL CHEMISTRY-II	1.Understand the electrical properties of molecules and its application 2.Understand magnetic properties of molecules and its application for solving problem for structure determination 3.Know about the order and molecularity of reaction and also determination of

SNMV College of Arts & Science

	order of reactions 4.Understand and learn the theoretical and experimental aspects of kinetics of reactions 5.Gain detailed knowledge on photochemical and thermal reactions.
63P GRAVIMETRIC ANALYSIS AND PHYSICAL CHEMISTRY	1.Understand the concept of gravimetric analysis. 2.Find a suitable precipitation method and perform effective precipitation to determine the amount of the cation. 3.Calculate the conductance of the solution at various stages of neutralization 4.Determine the rate and dissociate constant for a reaction 5.Perform graphical analysis to arrive experimental results based on the physical chemistry experiments
63Q PRACTICAL FOR ELECTIVE SUSBJECTS	1.Use the physical constants in the analysis of a substance. 2.Prepare inorganic complexes 3.Perform organic transformation involving substitution and oxidation reactions 4.Use effectively the Complexometric method to estimate hardness of water 5.Colorimetric methods in the estimation of various salts and ions
6ZP TEXTILE CHEMISTRY PRACTICAL	1.Analyze the quality of water for industrial use as well as various substances of industrial use 2.Learn the various methods of dye preparation and dyeing.
6EC DYE CHEMISTRY	1.Understand the principles of colour and its relation with compound's structure 2.Analyze and classify dyes based on their chemical structure and applications 3.Describe the synthesis of di and triphenyl methane dyes and their applications 4.Understand chemistry of nitrogen containing dyes and their applications 5.Outline the importance of pigments in various fields
6EE ENVIRONMENTAL CHEMISTRY	1.Understand the concepts ,environmental segments and composition of the atmosphere 2.Know about the environment cycles and their significance 3.Discuss the water pollution,sewage and Industrial waste water treatment 4.Describe the reactions in air pollution ,particulates and analysis of pollutants 5.Explain the thermal, noise and radioactive pollution and their effects and methods of control .

SNMV College of Arts & Science

BSC PHYSICS

Program Educational Objectives (PEOs)	
On obtaining an undergraduate degree the students will be able to,	
PEO1	have strong foundation in basic sciences, mathematics and computational platforms.
PEO2	acquire professional and ethical attitude, develop communicative skills, teamwork spirit, multidisciplinary approach, and an ability to relate and solve scientific/ technical issues.
PEO3	enter into higher studies leading to post-graduate and research degrees.
PEO4	apply and advance the knowledge and skills acquired to become a competent professional in their chosen field.
PEO5	serve the society with scientific advancement and to actively take part in building knowledge-based society.
PEO6	comprehend, analyze, design and create novel products and solutions for the real life problems through good scientific and technical knowledge.
PEO7	become an entrepreneur who can make and sell scientific products in the market.
PEO8	engross in life-long learning to keep themselves abreast of new developments and to face global challenges.
Program Specific outcome (PSOs)	
After the successful completion of B.Sc., Physics program, the students are expected to,	
PSO1	realize the role of Physics in day to day life.
PSO2	communicate explicitly and exchange ideas with regard to the impacts of various components of Physics on environment and society.
PSO3	expertise in various domains of Physics.
PSO4	design and develop the skills towards the futuristic needs of the industry/ society utilizing both theoretical and practical knowledge acquired in basic Physics.
PSO5	identify and access the diverse applications of Physics using mathematical concepts enriching towards career opportunities.
Program Outcomes (POs)	
On successful completion of the B. Sc. Physics program, the students will be able to,	
PO1	understand the basic concepts and significance of various physical phenomena.
PO2	transform ideas into action i.e. lab to land
PO3	acquire a wide range of problem solving skills, both analytical and computational and to apply them.
PO4	develop an independent and self-disciplined specialized learning in tune with the changing socio-technological scenario
PO5	get motivated to pursue higher education and research activities in Physics to find professional level employment
PO6	identify, analyse and formulate novel ideas to yield, substantial results in the fields of research utilizing the principles of Physics.
PO7	develop creative thinking and innovative tools
PO8	communicate effectively in order to acquire employability/ self – employment
PO9	acquire a broad interdisciplinary knowledge.
PO10	update themselves in the current developments and discoveries related to Physics

SNMV College of Arts & Science

Course Outcomes	
Courses	**Outcomes**
13A MECHANICS, PROPERTIES OF MATTER AND SOUND	On the successful completion of the course, student will be able to: 1 understand and define the laws involved in mechanics. 2 gain deeper understanding of mechanics and its fundamental concepts. 3 understand the concept of properties of matter and to recognize their applications in various real problems. 4 analyze the universal behavior of wave motion. 5 learning the basic concepts of elasticity, surface tension, Gravitation, viscosity, and sound and evaluating their values for various materials. 6 explore the production and application of ultrasonic wave
23A HEAT AND THERMODYNAMICS	On the successful completion of the course, student will be able to: 1 realise various principles and laws of heat 2 derive expressions and find experimental verifications for the laws studied 3 analyse the applications of heat and thermodynamics in various areas and solve the real life problems.
23P CORE PRACTICAL I	On the successful completion of the course, student will be able to: 1 analyze the concepts of Viscosity, Surface Tension and Young's Modulus of different substances 2 explore the knowledge of Spectrometer and other Optical instruments 3 realize principles and applications of Potentiometer, Sonometer, Magnetometer and PN junction diode
33A OPTICS	On the successful completion of the course, student will be able to: 1 remember the behavior of light on passing through lens, prism, thin film and grating 2 understand the phenomena of light like Interference, diffraction, polarization and population inversion 3 analyze and apply the concepts of dispersive power, refractive index, resolving power, double refraction, specific rotation and optical pumping for different materials
3ZA INSTRUMENTATION - I	On the successful completion of the course, student will be able to: 1 use the concepts of measurement. 2 understand a typical instrument design. 3 apply statistical error analysis for measurement 4 choose a transducer/sensor for typical measurement of temperature, pressure and flow. 5 evaluate the performance and reliability of measurement devices available in market. 6 design a basic measurement device.
43A ATOMIC PHYSICS AND SPECTROSCOPY	On the successful completion of the course, student will be able to: 1 analyse various types of spectrographs to study about the positive rays 2 explain magneto optical properties of materials 3 find applications of photo electrical cells and X Rays
43P CORE PRACTICAL II	On the successful completion of the course, student will be able to: 1 apply the concepts of Specific heat capacity and Young's Modulus of different substances 2 acquire the knowledge of Physical optics using Spectrometer

SNMV College of Arts & Science

	3 evaluate principles and applications of Potentiometer, Magnetometer and BG.
4ZB INSTRUMENTATION II	On the successful completion of the course, student will be able to: 1 use thermal and nuclear radiation detectors 2 understand the high temperature process in transient and industrial conditions 3 use adequate equipment to determine the state of pollution in the environment 4 design and use simple instrumentation for measurement of mechanical properties 5 understand the living conditions in industrial areas 6 apply modelling concepts for the prediction and determination of random vibrations
53A MATHEMATICAL PHYSICS	On the successful completion of the course, student will be able to: 1 derive Lagrange's and Hamilton's equations 2 apply Lagrange's and Hamilton's equations to physical problems 3 analyze gamma and beta functions and their applications 4 solve problems on Matrices and apply them to relevant problems 5 apply Stoke's and Gauss theorems to suitable physical problems
53B ELECTRONICS	On the successful completion of the course, student will be able to: 1 differentiate between different types of amplifiers and their applications 2 design different types of oscillators 3 apply switching ideas to various devices 4 analysing the power electronic devices and their uses 5 design operational amplifier circuits and to analyse their properties
53C SOLID STATE PHYSICS	On the successful completion of the course, student will be able to: 1 choose the right material for a given application based on Fermi level concept 2 analyze the magnetic materials for utilization in varied fields. 3 design new components or devices using dielectrics and superconductors.
53D ELECTRICITY AND MAGNETISM	On the successful completion of the course, student will be able to: 1 define and derive the laws of electricity and magnetism 2 update the knowledge of properties and magnetism 3 expertise the skills to manufacture devices
5ZC INSTRUMENTATION III	On the successful completion of the course, student will be able to: 1 understand the principles of biomedical instruments. 2 enable the students to understand the working of basic electromagnetic and electronic instruments. 3 appropriately chose electronic components. 4 carry out minimal testing and maintenance of lab equipment. 5 troubleshoot simple electronic circuits using multi meters and oscilloscopes. 6 interpret results of Biomedical measurement.
63A QUANTUM MECHANICS AND RELATIVITY	On the successful completion of the course, student will be able to: 1 acquire the knowledge of wave nature of matter and its experimental verification 2 understand Heisenberg uncertainity principle and apply it to verify problems in atomic and nuclear Physics 3 Identify the reason behind various physical problems using relativity and to solve them
63B NUCLEAR PHYSICS	On the successful completion of the course, student will be able to: 1 understand the General properties of Nucleus 2 analyze the construction and working of radiation detectors

SNMV College of Arts & Science

	3 device instruments utilizing the behavior of nuclear particles
63P CORE PRACTICAL III ELECTRONICS	On the successful completion of the course, student will be able to: 1 design different types of Power supplies, Amplifiers and Oscillators 2 to analyze the characteristics of various Electronic devices like BJT, UJT, LDR, and Solar cell 3 acquire the knowledge of the characteristics of an operational amplifier
63Q DIGITAL AND MICROPROCESSOR	On the successful completion of the course, student will be able to: 1 analyze the different types of digital circuits and their applications 2 realize the applications of registers in computers 3 update the knowledge of Microprocessor programming
63R C AND C++ PROGRAMMING	On the successful completion of the course, student will be able to: 1 Write and execute programmes in C and C++ 2 Analyze the programming concepts for Physics problems 3 Evaluate the solutions for different Mathematical problems
6ZP INSTRUMENTATION PRACTICALS	On the successful completion of the course, student will be able to: 1 service and rectify the defects in laboratory instruments 2 service and rectify the defects in simple house hold devices. 3 device new instruments applying the knowledge of instrumentation
5EA PRINCIPLES OF PROGRAMMING CONCEPTS AND C PROGRAMMING ELECTIVE PAPER – I A	On the successful completion of the course, student will be able to: 1 design features of programming languages, and justify their own design decisions 2 critically evaluate what paradigm and language are best suited for a new problem 3 use C programming to solve Physics problems.
6EA DIGITAL AND MICROPROCESSOR ELECTIVE II A	On the successful completion of the course, student will be able to: 1 draw and construct the logic circuit for any Boolean equation. 2 apply the Karnaugh Map to simplify Boolean equation and draw a simplified circuit 3 understand the function of data processing and arithmetic circuits 4 understand the Mnemonics and Opcodes in the Microprocessor 5 develop programming skills using the basic concepts.
6EB Object Oriented Programming with C++ ELECTIVE III A	On the successful completion of the course, student will be able to: 1 understand the concept of data abstraction and encapsulation 2 learn how to design C++ classes for code reuse. 3 learn how to use exception handling in C++ programs.

SNMV College of Arts & Science

BSC COMPUTER TECHNOLOGY

Program Educational Objectives (PEOs)	
The **B. Sc. Computer Technology** program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To enhance the broad knowledge in core area related to computer software and hardware technologies
PEO2	To develop and acquire in-depth knowledge in software design and implementation to meet the requirement of corporate
PEO3	To facilitate the graduates to pursuing professional careers or researcher or entrepreneurs in computing technologies
PEO4	To enrich the learners to develop communication, professional skills and to inculcate team spirit
PEO5	To stimulate the graduates to build awareness on social responsibility , ethical practices and human values in-built in the discipline
Program Specific outcome (PSOs)	
After the successful completion of B.Sc Computer Technology program, the students are expected to	
PSO1	Ability to apply core area knowledge in computing system in appropriate to the discipline
PSO2	Acquired knowledge in software and hardware skills and implementation challenges in varying techniques
PSO3	Ability to engage in life-long learning and adopt fast changing technology to prepare for professional development
PSO4	Improve to exhibit professionally or team leader or entrepreneur
PSO5	Realize technological advances impart society and the social, ethical difficulties of computer technology and their practice.
Program Outcomes (POs)	
On successful completion of the B.Sc . Computer Technology program	
PO1	**Disciplinary knowledge:** Capable to apply the knowledge of mathematics, algorithmic principles and computing fundamentals in the modeling and design of computer based systems of varying complexity.
PO2	**Scientific reasoning/ Problem analysis**: Ability to critically analyze, categorizes, formulate and solve the problems that emerges in the field of computer science.
PO3	**Problem solving:** Able to provide software solutions for complex scientific and business related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
PO4	**Environment and sustainability:** Understand the impact of software solutions in environmental and societal context and strive for sustainable development.
PO5	**Modern tool usage:** Use contemporary techniques, skills and tools necessary for integrated solutions.
PO6	**Ethics:** Function effectively with social, cultural and ethical responsibility as an individual or as a team member with positive attitude.

SNMV College of Arts & Science

PO7	**Cooperation / Team Work:** Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.
PO8	**Communication Skills:** An ability to communicate effectively with diverse types of audience and also able to prepare and present technical documents to different groups.
PO9	**Self-directed and Life-long Learning:** Graduates will recognize the need for self-motivation to engage in lifelong learning to be in par with changing technology.
PO10	Enhance the research culture and uphold the scientific integrity and objectivity

DEPARTMENT NAME: B.Sc Computer Technology	
DEPARTMENT NAME	
Course Outcomes	
Courses	**Outcomes**
Core 1: Computing Fundamentals and C Programming (13A)	On the successful completion of the course, student will be able to:
	CO1: Learn about the Computer fundamentals and the Problem solving
	CO2: Understand the basic concepts of C programming
	CO3: Describe the reason why different decision making and loop constructs are available for iteration in C
	CO4: Demonstrate the concept of User defined functions , Recursions , Scope and Lifetime of Variables, Structures and Unions
	CO5: Develop C programs using pointers Arrays and file management
Core 2: Digital Fundamentals and Computer Architecture (13B)	On the successful completion of the course, student will be able to:
	CO1: Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers.
	CO2:Define the functions to simplify the Boolean equations using logic gates.
	CO3: Understand various data transfer techniques in digital computer and control unit operations.
	CO4:Compare the functions of the memory organization
	CO5:Analyze architectures and computational designs concepts related to architecture organization and addressing modes
Core Lab 1: Programming Lab – C (13P)	On the successful completion of the course, student will be able to:
	CO1: Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series **(Program-1,2,3)**

SNMV College of Arts & Science

	CO2:Apply the concepts to print the Magic square, Sorting the data , Strings, Recursive functions and Pointers **(Program-4,5,6,8,10)**
	CO3:Remember the logic used in counting the vowels in a sentence **(Program-7)**
	CO4:Apply and Analyze the concepts of Structures and File management **(Program-9,11,12)**
Core 3: C++ Programming (23A)	On the successful completion of the course, student will be able to:
	CO1: Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology
	CO2:Illustrate and model real world objects and map it into programming objects for a legacy system.
	CO3:Identify the concepts of inheritance and its types and develop applications using overloading features.
	CO4:Discover the usage of pointers with classes
	CO5:Explain the usage of Files, templates and understand the importance of exception Handling
Core Lab 2: Programming Lab – C++ (23P)	On the successful completion of the course, student will be able to:
	CO1: Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology
	CO2:Illustrate and model real world objects and map it into programming objects for a legacy system.
	CO3:Identify the concepts of inheritance and its types and develop applications using overloading features.
	CO4:Discover the usage of pointers with classes
	CO5:Explain the usage of Files, templates and understand the importance of exception Handling
Core Lab 3: Internet Basics (23Q)	On the successful completion of the course, student will be able to:
	CO1: Understand the fundamentals of Internet and the Web concepts
	CO2:Explain the usage of internet concepts and analyze its components.
	CO3:Identify and apply the online information resources
	CO4:Inspect and utilize the appropriate Google Apps for education effectively
Core 4: Data Structures (33A)	On the successful completion of the course, student will be able to:
	CO1: Understand the basic concepts of data structures and algorithms
	CO2:Construct and analyze of stack and queue operations with illustrations

SNMV College of Arts & Science

	CO3:Enhance the knowledge of Linked List and dynamic storage management.
	CO4:Demonstrate the concept of trees and its applications
	CO5:Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations
Core 5: Java Programming (33B)	On the successful completion of the course, student will be able to:
	CO1: The competence and the development of small to medium sized application programs that demonstrate professionally acceptable coding
	CO2:Demonstrate the concept of object oriented programming through Java
	CO3:Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling and data persistence to develop java program
	CO4:Develop java programs for applets and graphics programming
	CO5:Understand the fundamental concepts of AWT controls, layouts and Events
Core Lab 4: Programming Lab Java (33B)	On the successful completion of the course, student will be able to:
	CO1: Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding
	CO2:Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping
	CO3:Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.
	CO4:Develop applications using Strings, Interfaces and Packages and applets
	CO5:Construct Java programs using Multithreaded Programming and Exception Handling
Allied 3: E-Commerce (3AC)	On the successful completion of the course, student will be able to:
	CO1: Understand of basic E-Commerce concept
	CO2: Understand the concept of E-Market
	CO3:Understand the concept of EDI
	CO4: Understand the concept of Business strategies & basic HTML tags
	CO5: Analyze and implementation of existing business in E-Commerce technique
Skill based Subject 1 : Data	On the successful completion of the course, student will be able to:
	CO1: Understand the basics of communications and networking

SNMV College of Arts & Science

Communication & Networks (3ZA)	CO2:Understand and remember the analog and digital transmission methods, mode of transmissions, parallel and serial communications, etc.
	CO3:Understand and analyse the transmission media, network topology and switching techniques.
	CO4:Remember, understand the network protocols and the functions of OSI model
	CO5:Understand the ISDN architecture, interfaces, protocols, ATM cells and layers.
Core 6: System Software and Operating System (43A)	On the successful completion of the course, student will be able to:
	CO1: Know the program generation and program execution activities in detail
	CO2:Understand the concepts of Macro Expansions and Gain the knowledge of Editing processes
	CO3:Remember the basic concepts of operating system
	CO4:Understand the concepts like interrupts, deadlock , memory management and file management
	CO5:Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in DOS and UNIX operating system.
Core 7: Linux and Shell Programming (43B)	On the successful completion of the course, student will be able to:
	CO1: Describe the architecture and features of Linux Operating System and distinguish it from other Operating System.
	CO2:Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration
	CO3:Develop shell scripts using pipes, redirection, filters and Pipes
	CO4:Apply and change the ownership and file permissions using advance Unix commands.
	CO5:Build Regular expression to perform pattern matching using utilities and implement shell scripts for real time applications.
Core Lab 5: Linux and Shell Programming Lab (43P)	On the successful completion of the course, student will be able to:
	CO1: Develop Linux utilities to perform File processing, Directory handling and User Management
	CO2:Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration
	CO3:Develop simple shell scripts applicable to file access permission network administration
	CO4:Apply and change the ownership and file permissions using advance Unix commands.

SNMV College of Arts & Science

	CO5:Create shell scripts for real time applications.
Skill based subject 2 (lab) : Network Lab (4ZP)	On the successful completion of the course, student will be able to:
	CO1: Understand the concept of error detections in LRC and CRC techniques and develop programs.
	CO2:Understand and apply types of communications using sockets
	CO3:Understand the concept the communication protocols and create application to illustrate the concepts.
	CO4:Understand the routing protocol, apply the concept and develop applications.
	CO5:Understand, analyse, and apply the concept of Remote procedures using client server applications.
Core 8: RDBMS & Oracle (53A)	On the successful completion of the course, student will be able to:
	CO1: Understand the basic concepts of Relational Data Model, Entity-Relationship Model and process of Normalization
	CO2:Understand and construct database using Structured Query Language (SQL) in Oracle9i environment.
	CO3:Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions.
	CO4:Understand and use built-in functions and enhance the knowledge of handling multiple tables
	CO5:Attain a good practical skill of managing and retrieving of data using Data Manipulation Language (DML)
Core 9: Visual Basic (53B)	On the successful completion of the course, student will be able to:
	CO1: Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars.
	CO2:Implement SDI and MDI applications using forms, dialogs and other types of GUI components.
	CO3:Understand the connectivity between VB with MS-ACCESS database.
	CO4:Implement the methods and techniques to develop projects.
	CO5:Attain a good practical skill of managing ODBC and Data Access Objects
Core Lab 6: Programming Lab – VB & Oracle (53P)	On the successful completion of the course, student will be able to:
	CO1: Understand the concepts of Visual Basic.
	CO2:Learn the advantages of Controls in VB
	CO3:Design and develop the event- driven applications using Visual Basic framework.

SNMV College of Arts & Science

	CO4:Apply the knowledge of database methods.
	CO5:Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions
Elective-I Mobile Computing (5EA)	On the successful completion of the course, student will be able to:
	CO1:Understand the history of mobile computing, applications, standards and mobile computing architecture.
	CO2:Understand the mobile computing techniques related to telephone, access procedures, IVR applications and Voice XML.
	CO3:Understand and analyse the emerging technologies Bluetooth, RFID, WiMAX, etc. also GSM.
	CO4:Knowledge on GPRS, GPRS network architecture, Data services, applications for GPRS and limitations.
	CO5:Knowledge on CDMA and 3G, CDMA Vs GSM, applications of 3G wireless LAN, Architecture, Adhoc and sensor networks and security features.
Elective-I Distributed Computing (5EB)	On the successful completion of the course, student will be able to:
	CO1: Understand the concepts and techniques in distributed computing and client server computing.
	CO2:Understand the pros and cons of distributed processing, databases, challenges.
	CO3:Understand the design considerations in distributed computing
	CO4:Understand and analyse the client server network model, file server, printer server and email server.
	CO5:Understand and obtaining the Knowledge on distributed databases, R* project techniques.
Elective-I Python Programming (5EC)	On the successful completion of the course, student will be able to:
	CO1:Remembering the concept of operators, data types, looping statements in Python programming.
	CO2:Understanding the concepts of Input / Output operations in file
	CO3:Applying the concept of functions and exception handling
	CO4:Analyzing the structures of list, tuples and maintaining dictionaries
	CO5:Demonstrate significant experience with python program development environment
Skill based Subject 3: Network Security & Management (5ZC)	On the successful completion of the course, student will be able to:
	CO1: Understand the basic of network security and security infrastructure.
	CO2:Understanding the mechanisms in hardware, software security and database security.

SNMV College of Arts & Science

	CO3:Understand the infrastructure and classification of intrusion detection systems and network security.
	CO4:Knowledge on network management standards, network management model, SNMP, security plan and disaster recovery.
	CO5:To inculcate knowledge on Email policy, university email policy and security of internet banking system and also the layered approach to security.
Core 10: Graphics & Multimedia (63A)	On the successful completion of the course, student will be able to:
	CO1: Explain applications, principles ,commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle- Generating and Ellipse-Generating.
	CO2:Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques
	CO3:Studies concepts of Multimedia Systems, Text, Audio and Video tools
	CO4:Compressing audio and video using MPEG-1 and MPEG-2
	CO5:Creates Animation with special effects using algorithms
Core 11: Project Work Lab (67V)	On the successful completion of the course, student will be able to:
	CO1: Formulate a real world problem and develop its requirements develop a design solution for a set of requirements.
	CO2:Test and validate the conformance of the developed prototype against the original requirements of the problem.
	CO3:Work as a responsible member and possibly a leader of a team in developing software solutions.
	CO4:Express technical ideas, strategies and methodologies in written form. Self-learn new tools, algorithms and techniques that contribute to the software solution of the project.
	CO5:Generate alternative solutions, compare them and select the optimum one.
Core Lab 7: Programming Lab – Graphics & Multimedia (63P)	On the successful completion of the course, student will be able to:
	CO1: Understand the basic concepts of computer graphics.
	CO2:Design scan conversion problems using C and C++ programming.
	CO3:Apply clipping and filling techniques for modifying an object.
	CO4:Understand the concepts of different type of geometric transformation of objects in 2D.
	CO5:Understand and develop the practical implementation of modeling, rendering, viewing of objects in 2D
	On the successful completion of the course, student will be able to:

SNMV College of Arts & Science

Elective-II : Middleware Technologies (6EA)	CO1:Understand the client server architecture, J2EE architecture, DOTNET architecture and MVC architecture.
	CO2:Understand the presentation services JSP and interaction services RMI, CORBA, XML, JAXP, JMS and data management services JDBC.
	CO3:Understand the component model EJB and obtain knowledge on entity bean and message driven bean.
	CO4:Understand the ASP.NET architecture, web server controls, rich web controls and validation controls, Analyse security management in ASP.NET.
	CO5:Knowledge on ADO.NET with ASP.NET for creating web based data centric applications. Also understand web services.
Elective-II : Animation Techniques (6EB)	On the successful completion of the course, student will be able to:
	CO1:Understand the basics of animation, need of animations, types of animation, techniques of animation and special effects.
	CO2:Understand and apply animations in flash, working with time time-line and frame based animations, tween-based animations and layers
	CO3:Knowledge on working with time-line, frame-based and tween-based animation.
	CO4:Understanding the motion caption, software to capture the motion
	CO5:Apply the animation concepts and concept development to develop or create 3D animated movies
Elective-II : Computer Installation & Servicing (6EC)	On the successful completion of the course, student will be able to:
	CO1: Understand the basics of PC, functional blocks, and memory organization.
	CO2:Understand the floppy disk, hard disk drive, MMX.
	CO3:Knowledge in input devices monitors and display adapters.
	CO4:Knowledge in output devices and PC installation steps.
	CO5:Understand the troubleshooting and servicing, data security, communication networking, modem and internet.
Elective-III : Data Mining (6ED)	On the successful completion of the course, student will be able to:
	CO1: Identify data mining tools and techniques in building intelligent machines understand
	CO2:Analyze various data mining algorithms in applying in real time applications.
	CO3:Demonstrate the data mining algorithms to combinatorial optimization problems
	CO4:Illustrate the mining techniques like association, classification and clustering on transactional databases.
	CO5:Perform exploratory analysis of the data to be used for mining.
Elective-III : Embedded Systems (6EE)	On the successful completion of the course, student will be able to:
	CO1:Understand and remember the basic concepts in embedded system and memory organization, DMA.

SNMV College of Arts & Science

	CO2:Understand the devices, buses for device networks, serial and parallel port device drivers, interrupt servicing mechanism.
	CO3:Understand the embedded programming concepts in C and C++, apply to develop embedded application.
	CO4:Knowledge on programming in single and multiprocessor system
	CO5:Knowledge in Inter-Process Communication and synchronization of processes, tasks and threads.
Elective-III : Internet of Things(IoT) (6EF)	On the successful completion of the course, student will be able to:
	CO1:To understand the fundamentals of Internet of Things
	CO2:To know the basics of communication protocols and the designing principles of Web connectivity.
	CO3:To gain the knowledge of Internet connectivity principles
	CO4:Designing and develop smart city in IoT
	CO5:Analyzing and evaluate the data received through sensors in IOT
Skill based Subject 4 (lab) : Network Security Lab (6ZP)	On the successful completion of the course, student will be able to:
	CO1: Understand the basic of network security and security infrastructure and develop programs.
	CO2:Understanding and apply the software security and database security.
	CO3:Understand the infrastructure and classification of intrusion detection systems and network security.
	CO4:Knowledge on network management standards, network management model, SNMP, security plan and disaster recovery.
	CO5:To inculcate knowledge on Email policy, university email policy and security of internet banking system and also the layered approach to security.

SNMV
College of Arts & Science

PG

SNMV

COURSE

College of Arts & Science

MBA

Program Educational Objectives (PEOs)	
A graduate of Master of Business Administration program is expected to attain the following within five to seven years after graduation	
PEO1	Occupy middle level managerial positions in private and public sector business firms
PEO2	Occupy executive positions in primary, secondary and tertiary sector industries
PEO3	Adding value to organizations by ushering in innovative ideas and applying emerging technologies
PEO4	Become successful entrepreneurs providing employment for many and contribute to the country's economic growth
PEO5	Turn to productive research in Management and contribute to the existing body of knowledge
Program Specific outcome (PSOs)	
After the successful completion of MBA program, the students are expected to	
PSO1	Take decisions related to their area of employment independently
PSO2	Apply knowledge gained to arrive at rational decisions
PSO3	Manage a relatively small group of people effectively
PSO4	Achieve objectives consistently
PSO5	Conduct research in the broad field of Management
Program Outcomes (POs)	
The students are expected to possess the following skill sets on completing the course	
PO1	Basic knowledge of different spheres of management
PO2	Business decision making
PO3	Analyze the situation and find solutions
PO4	People management skills
PO5	Goal oriented team work

SNMV
College of Arts & Science

DEPARTMENT NAME: MASTER OF BUSINESS ADMINSTRATION	
DEPARTMENT NAME: MBA	
Course Outcomes	
Courses	Outcomes
MANAGEMENT PRINCIPLES AND PRACTICE	• Learn basic concepts of management • Understand the various functions of business management • Identify the scope and application of management in day-to-day life
ORGANISATIONAL BEHAVIOUR	• Learn basic concepts of individual and group Behaviour • Recognize the application of OB in business management • Learn to modify personality for better work performance
MANAGERIAL ECONOMICS	• Take right decision in business by analyzing micro and macroeconomic situations. • Gaining knowledge related to fundamental concepts of Economics. Acquiring talented skills on pricing policy and decisions. • Tapping key skills on profit and investment analysis. • Application of earned knowledge in analyzing monetary and fiscal policies.
FINANCIAL AND MANAGEMENT ACCOUNTING	• Learn the basic functions, principles and concepts of accounting. • Understand postulates and techniques of accounting. • Analyse the various issues of Financial and Management • Accounting to strengthen it • Evaluate the various tools of accounting to resolve business problems • Create interest to do research in the field of accounting
QUANTITATIVE METHODS FOR MANAGEMENT	• Memorise and reproduce all basic formulae covered in the syllabus • Explain in detail all the theoretical concepts taught through the syllabus • Apply the acquired knowledge and skills to the practical problems in business and research • Illustrate the use of mathematical and statistical techniques in business decision making • Interpret the results of mathematical and statistical techniques for business decision making • Create and find the solution for the business situations using mathematical and statistical techniques
CORPORATE COMMUNICATION	• Acquire written and spoken communication skill and able to write and speak efficiently. • Possess knowledge on various methods of communication adopted in companies.

SNMV College of Arts & Science

	• Write business reports, present and prepare their own resume and effectively perform in job interviews. • Acquire the knowledge in presenting any business idea.
INTRODUCTION TO INDUSTRY 4.0	• Understand the basic concepts of Industry 4.0 • Outline the features of Artificial Intelligence • Summarize the Big data domain stack and Internet of Things • Identify the applications and Tools of Industry 4.0. • Analyze the skills required for future
BASICS OF INDIAN COMPANIES ACT 2013(VAC1) * *Value Added Course	• Understand the basic concepts of Companies Act 2013 • Outline the features of tax reforms • Update the changes in Companies Act 2013 •
	II SEMESTER
OPERATIONS MANAGEMENT	• Understand and focus on the basic ideas of Operations Management, functions, types and product designs; computer integrated manufacturing systems, etc. • Apply their knowledge in product design, evaluation and selection of operations, different types of layout, manufacturing system, line balancing and CIMS. • Analyse production planning and control, capacity requirement planning and its techniques, Business Process Re-engineering and total productive maintenance. • Apply and evaluate Materials Management and Inventory Control Systems. • Create total quality management, type I and type II error, ISO Quality Certifications and Six Sigma concept.
MARKETING MANAGEMENT	• Understand the fundamentals and Analyse core aspects of marketing. • Demonstrate the market segmentation and targeting to build knowledge on consumer Behaviour • Use creative, critical and reflective thinking to address organizational opportunities and to interpret the product and pricing decisions. • Identify the promotional aspects of marketing and modern marketing • Measure the marketing control and modern trends.
FINANCIAL MANAGEMENT	• Learn the basic functions, principles and concepts of Financial Management • Understand postulates, principles and techniques of Financial Management. • Apply financial management concepts to resolve business problems

SNMV College of Arts & Science

	• Analyse the practical issues of Financial Management • Create interest to do research in the field of accounting
HUMAN RESOURCE MANAGEMENT	• Learn the basic functions, principles and concepts of HRM • Understand importance of HRM concepts in business • Apply the HRM tools to achieve specific objectives
QUANTITATIVE TECHNIQUES	• Memorise and reproduce all basic steps in solving the various quantitative techniques covered in the syllabus • Know in detail the identification of appropriate quantitative technique for a given business situation • Apply the acquired knowledge and skill to solve the practical problems of business • Illustrate the use of quantitative techniques in business decision making Interpret the results obtained from the quantitative techniques for obtaining optimal solution • Create and solve the business situations using quantitative techniques
RESEARCH METHODS FOR MANAGEMEN	• Apply a range of quantitative and / or qualitative research techniques to business and management problems / issues. • Understand and apply research approaches, techniques and strategies in the appropriate manner for managerial decision making. • Demonstrate knowledge and understanding of data analysis and interpretation in relation to the research process. • Develop necessary critical thinking skills in order to evaluate different research approaches utilized in the service industries. • Students should be able to define the meaning of a variable, and identify independent, dependent, and mediating variable
COMPUTER APPLICATION IN MANAGEMENT USING SAP-**CORE-PRACTICAL**	• Understand the various system application products • Apply the various components of computers to resolve business problems • Analyse the various issues of SAP & ERP to strengthen it • Create interest to do research in the field of SAP & ERP
CREDIT ANALYSIS-**JOB ORIENTED COURSE-1**	• Understand the basic concepts of credit analysis • Carry out Ratio and Cash flow analysis • Identify problem loans and manage them
	III SEMESTER
BUSINESS ETHICS AND GLOBAL BUSINESS ENVIRONMENT- **CORE**	• Understand the importance of ethical decisions and the consequences of unethical decisions. • Understand that the business has a social responsibility towards the society. Understand the relative information regarding corporate governance. • Gathering complete knowledge about trade theory.

SNMV College of Arts & Science

	• Learning the strategies of international business.
MANAGEMENT INFORMATION SYSTEM- **CORE**	• Describe the basic concepts related to Management Information System Explain in detail the various functional information systems • Use of DSS models, AI, Expert Systems in decision making process • Analyzing the various information resources and technologies for developing an efficient information system • Evaluating the various security challenges for a secured information system • Creating an information system for an organization to process the data for decision making process
BUSINESS INTELLIGENCE THROUGH INTRNET OF THINGS- **VALUE ADDED COURSE-2**	• Understand the basic concepts of Industry 4.0 • Developing new applications of I 4.0 • Understanding Data Analytics concepts
INTEGRATED MARKETING COMMUNICATION (PROMOTION MANAGEMENT)-**ELECTIVE**	• Understand the connection between marketing communications tools and how each can be used effectively-individually or in an integrated mix. • Apply the modern practices on promotion with respect to digital and online platforms • Analyse the advertisement media and tactics at corporate and market level Create advertisement copy • Evaluate the optimum sales promotional tool(s) for use in the marketing communications plan
CONSUMER BEHAVIOUR- **ELECTIVE**	• Understand the basic concepts in consumer Behaviour. • Relate the attitude, perception and personality type of individual consumers and analyze the impact of these factors on the purchase decisions. • Analyse the factors of group influence and its impact on consumer decision making process • Apply the methods of consumer attitude formation that influence a particular purchase decision. • Evaluate the culture and consumer behavioral patterns
STAFFING IN ORGANISATIONS- **ELECTIVE**	• Understand the concepts and process of recruitment and selection • Apply the methods of selection and recruitment to evaluate applicants fairly • Evaluate contemporary recruitment and selection processes • Evaluate the critical functions in selection • Design selection process for organizations
PERFORMANCE MANAGEMENT- **ELECTIVE**	• Understand the performance management framework • Articulate organizational and individual goal setting process

SNMV College of Arts & Science

	• Evaluate the various employee appraisal methods • Design a simple employee performance appraisal system
FINANCIAL SERVICES- **ELECTIVE**	• Learn the basic functions, principles and concepts of financial services • Understand postulates, principles and techniques of financial services • Apply the various tools of accounting to resolve financial service problems • Analyse the various issues of financial services to strengthen it • Create interest to do research in the field of accounting
EQUITY RESEARCH AND PORTFOLIO MANAGEMENT- **ELECTIVE**	• Learn the basic functions, principles, concepts • Understand postulates, principles and techniques of Portfolio Management • Apply the various tools for Security Analysis • Analyse the various issues of capital market to resolve business problems Create interest to do research in the field of Portfolio Management
ELECTRONIC COMMERCE- **ELECTIVE**	• Describe the basic concepts related to E-Commerce • Explain in detail the various network and www architecture in Ecommerce • Launching an e-business on the internet K • Analyzing the various electronic payment system and electronic payments media for a suitable E-Commerce for an organization • Evaluating the various e-security measures for a secured electronic commerce system • Create a virtual electronic commerce system for an organization
SYSTEM ANALYSIS AND DESIGN- **ELECTIVE**	• Learn the basic functions, techniques and methods of system analysis and design • Apply the various software systems to resolve business problems • Analyse the various issues of system design to strengthen it • Create interest to do research in the field of system analysis and design
ADVANCED PRODUCTION MANAGEMENT- **ELECTIVE**	• Understand and analyze the issues related to the economic and social environment • Apply and evaluate the systems and procedures of Production Management • Understand and analyze scheduling and maintenance system • Evaluate the quantitative models for Production Planning and Control with supportive tools

SNMV College of Arts & Science

	• Create an effective productive system with human aspect and financial planning
INTEGRATED MATERIALS MANAGEMENT- **ELECTIVE**	• Perceive the basic concepts of Integrated Materials Management. • Apply various tools and techniques related to maintenance of Stock levels and Inventory audit. • Evaluate and apply the decisions related to make or buy Import purchase procedures and purchase performance. • Analyse store's location and warehousing system in a manufacturing-oriented organization. • Identify and evaluate practical problems related to stores performance and transportation and create effective system.
HOSPITAL OPERATIONS MANAGEMENT- **ELECTIVE**	• Recognize various concepts related to patient care services in hospital • Have knowledge of services like lab, intensive care unit, blood bank services and ward management • Implement quality control system in hospital • Evaluate nutrition and dietary services, pharmacy services, medical records services, transportation services, etc. • Constitute the maintenance of civil assets, communication system and disaster management, etc.,
HOSPITAL ARCHITECTURE PLANNING & DESIGN- **ELECTIVE**	• Recognize various concepts related to planning and design of hospital • Have knowledge of tools and techniques for project management • Implement project scheduling • Evaluate and organize the human resources in project execution
LOGISTICS MANAGEMENT **ELECTIVE**	• Know basic concepts of Logistics Management • Understand the importance of Logistics in Business • Apply ICT in Logistics Management
EXPORT IMPORT TRADE AND DOCUMENTATION- **ELECTIVE**	• Identify various documents used in International Trade • Understand the importance of EXIM Financing • Comprehend the features of Foreign Trade Policy
	IV SEMESTER
STRATEGIC MANAGEMNT: INDIAN GLOBAL CONTEXT- **CORE**	• Identify elements of strategic planning • Understand the tools of strategy formulation • Learn the application of strategic planning in Indian and global context
TECHNOLOGY EMPOWERED MARKETING-**JOB ORIENTED COURSE-2**	• Understand the basic concepts of Tech driven marketing • Apply technology to reach to customers • Learn techniques of online marketing communications

SNMV College of Arts & Science

SERVICES MARKETING- ELECTIVE	• Familiarize with the special features of services sector • Understand the uniqueness in marketing mix decisions for services • Learn industry specific marketing perspectives
RETAIL MANAGEMENT - ELECTIVE	• Learn basic concepts of retailing • Understand the issues related to modern retailing • Identify the scope of ICT in retail management
CHANGE AND ORGANIZATION DEVELOPMENT- ELECTIVE	• Describe the framework of OD • Distinguish various stages of OD intervention • Evaluate the OD intervention techniques for different contexts • Critically assess the challenges in OD interventions
LABOUR WELFARE AND INDUSTRIAL RELATIONS - ELECTIVE	• Understand Industrial disputes and settling them • Critically analyze industrial relations and trade unionism • Evaluate various labour legislations and their implications
INTERNATIONAL FINANCIAL MANAGEMENT- ELECTIVE	• Learn the basic functions, principles and concepts of IFM • Understand postulates and techniques of International Financial Management • Apply the various tools of IFM to resolve Business Problem
PRINCIPLES OF INSURANCE- ELECTIVE	• Learn the basic functions, principles and concepts of insurance • Understand postulates and regulations of Insurance • Analyse the various issues in Insurance sector • Apply the insurance concepts to resolve Business Problems • Create interest to do research in the field of insurance
SOFTWARE PROJECT MANAGEMENT-ELECTIVE	• Learn the basic functions, techniques and methods of software project management • Apply the various software of system to resolve business problems • Analyse the various issues of software projects • Create interest to do research in the field of software project management
ENTERPRISE RESOURCE PLANNING-ELECTIVE	• Learn the basic functions, techniques and methods of ERP • To understand the role of ERP in an organization, its various modules, and implementation issues • Apply the various ERP techniques to resolve business problems Analyse the various issues of ERP • Create interest to do research in the field of ERP
TOTAL QUALITY MANAGEMENT- ELECTIVE	• Perceive the concepts of Total Quality Management and its approaches. • Apply the pillars of Total Quality Management, strategic thinking, guidelines towards organizational implications.

SNMV College of Arts & Science

	• Enable total quality models related to information and customer under quality management. • Analyse quality system and apply customer retention through quality measurement system. • Create strategic choice of markets and customers maintenance in the competitive environment
SUPPLY CHAIN MANAGEMENT- **ELECTIVE**	• Understand the concepts and components of Supply Chain Management. • Analyse customer focus in Supply Chain Management and evaluate the purchase performance. • Apply material handling system in store keeping and space management. • Evaluate the role of logistics in Supply Chain Management and customer service. • Create and implement information technology in Supply Chain Management.
PUBLIC HEALTH SYSTEMS AND HEALTH INSURANCE-- **ELECTIVE**	• Recognize various concepts related to health care sector • Have knowledge of health care system in India and at global level Implement project scheduling • Evaluate and organize the human resources in project execution • Constitute the project work system
INTERNATIONAL HEALTH MANAGEMENT-- **ELECTIVE**	• Recognize various concepts related to health care challenges • Have knowledge of the reforms of health care system • Implement health care system's trends and directions • Evaluate and organize the IPR, PCT and WIPO • Constitute the different forms of health policies in health care sector
GLOBAL SUPPLY CHAIN MANAGEMENT- **ELECTIVE**	• Identify various components of SCM • Understand the importance of SCM in customer value building • Comprehend the application of ICT in distribution networks
SHIPPING MANAGEMENT AND MARINE INSURANCE- **ELECTIVE**	• Familiarize with the modes of global transportation • Understand shipping and air transport practices • Recognize the significance of marine/cargo insurance

SNMV College of Arts & Science

MSW---DEPARTMENT OF SOCIAL WORK

Program Educational Objectives (PEOs)	
PEO1	Students can get Employment opportunity directly related to Social work and in its specialization area in government and in private sectors
PEO2	After the completion of the course student may start an NGO or work as an entrepreneur
PEO3	Students can became a social worker, school counsellor, programme organiser, project coordinators in upbringing the marginalized community
PEO4	To introduce the students for advance knowledge in the field of social work.
PEO5	To help students develop the skills needed in conducting a research in their specialization
Program Specific outcome (PSOs)	
PSO1	Develop an in-depth understanding of the Social Work profession, process through course work
PSO2	Demonstrate an advanced knowledge of skills in all areas including Personnel management and industrial relations, Medical and psychiatric social work, community organisation, Family and Child Welfare,
PSO3	Become proficient in a specific area of specialization.
PSO4	To expose students to analyse the problem and also enable them to frame a new policy, programme or procedure to solve the problem
PSO5	Adapt new innovative skills and strategies to solve the individual problem at local community level and at national level
Program Outcomes (POs)	
PO1	Implement new perspective of understanding the society and its problem
PO2	Helping the student to practice various social work interventions like counselling, case study, group therapy and community awareness programmes for any problem
PO3	Communicate their ideas, plan and programmes as solution for many social problems
PO4	Understand the structure and procedures of many organisation and provide effective method of fundraising, and other innovative programmes to develop the organisations according to the international standard
PO5	Develop new project and intervention programme according to the need of the different weaker section of the society.

SNMV College of Arts & Science

DEPARTMENT OF SOCIAL WORK	
Course Outcomes	
Courses	**Outcomes**
Introduction To Social Work	To understand the concept of social work, the importance of field work in social work profession & problems faced by social work profession in India
Sociology for Social Work	On successful completion of this subject the students should have knowledge on concept of society, Indian family system, Indian marriage system & India as a welfare state
Psychology for Social Work	To inculcate knowledge on the various stages of human growth & development.
Social Case Work	Enable the student to get sufficient knowledge on the case work process, approaches in case work & the application of case work in different settings
Social Work Perspectives for Persons with Disabilities	To inculcate knowledge on different types of disability, governmental schemes, and associations for differently abled persons.
Concurrent Field Work Training- I	To understand the functioning of NGO's, Psychiatric hospitals, industries and the governmental agencies
Social Group Work	To enable the students on the process and current trends of group work, expand their ability to build a team to achieve the goal in the society & apply the knowledge about social group work in various settings

SNMV College of Arts & Science

Community Organisation	To inculcate knowledge on the concept of community organization and community development, understand the role of NGO and SHG in community settings & the major reforms in social action
Social Work Research & Statistics	To inculcate knowledge on concepts and basic elements of social work research, to understand the research designs in social work research & the method of analysis
Human Rights & Social Legislation	To understand the concept of human right, legislations in human rights for target population & knowledge about social legislation
Labour Welfare	Enriching the knowledge about Labour and the welfare schemes , role of trade union in labour welfare and enlarge their capability to deal with the various welfare measures provided by the Government & objectives and schemes of workers education,
Community Health & Medical Social Work	Role of social worker in hospital setting, analyzing the psychosocial problems of patients with communicable diseases & the learning methods and techniques of health education
Rural Community Development	To understand the characteristics of rural community and the development program offered by the government
Concurrent Field Work Training- II (Including one week rural camp)	To familiarize with Vision, Mission, System, Processes and Objectives of the Welfare Organizations & organize one week rural/ tribal camp
Social Welfare administration & Social Legislations	To understand the concept of social welfare administration, the importance of social legislation & the methods and models of social welfare administration.
Social Entrepreneurship & Corporate Social Responsibility	To understand the concept of Entrepreneurship, corporate social responsibility & the ISO standard and importance**.**

SNMV College of Arts & Science

Labour Legislation	Enriching knowledge about laws relating to working condition and safety, facilitating laws related to wages & understanding laws related to social security
Hospital Administration	Understanding hospitals and departments, enriching the knowledge in administration of hospitals and budgeting of hospitals
Urban Community Development	To understand the different types of community and the developmental programs
Human Resource Management	To understand the functions of HRM and HRD and enables the students to understand the recruitment process , enriching the knowledge of students in training and development & theoretical idea on performance management system and understand the process of job analysis
Foundation of Psychiatry-I	Understanding the different functions in the human body, the different types of mental illness & enriching the knowledge in psychiatric illness
Welfare of Weaker Section	To assess the weaker section in the community and the welfare measures provided to the weaker section
Concurrent Field Work Training- III	The students are placed for field work training in an Agency with respect to the Field of Specialization and they practice the different tools, techniques and methods of social work like social case work, social group work and community organization.
Counselling & Guidance	Understanding the qualities of a counseling relationship , characteristics of a counselor & steps of counseling
Industrial Relations	To familiarize students with concepts of industrial relations, to facilitate current industrial relation scenario in India understanding industrial conflict and industrial democracy

SNMV College of Arts & Science

Foundation of Psychiatry-II	Enriches the knowledge of students in psychiatric illness, enables the students in analyzing the psychiatric patients & understanding the cultural bound syndromes
Social Development	To analyze the social developmental programs.
Organizational Behaviour	To understand the concept of organizational behavior, foundation of organizational behavior and Various challenges in organizational behavior and Organizational Development & importance of management information system and communication process
Psychiatric Social Work Practice	To understand the magnitude of mental health problems across the globe and India, psychological method/treatments in mental illness & policies and legislations related to mental health
Management of Non Profit Organization	To gain the knowledge about the functioning of the non governmental organizations.
Concurrent Field Work-IV	The students are placed for field work training in an Agency with respect to the Field of Specialization and they practice the different tools, techniques and methods of social work like social case work, social group work and community organization.
Project Work	Every student shall be required to complete a Research Project on a topic related to his/her field of Specialization. Candidates shall select the topic of the research in consultation with the Faculty Supervisor. Each Candidate shall submit three copy of his/her Project Report in the prescribed format during the end of Fourth Semester.
Block Placement Training	The students shall undergo a minimum of one month on the Job Training in an Agency with respect to the Field of Specialization of the Students.

SNMV
College of Arts & Science

MSC BT

Program Educational Objectives (PEOs)	
The M. Sc. Biotechnology program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Graduates will establish themselves in various sectors of Biotechnology related industries such as Pharma, clinical diagnostics, Agriculture, Food, textiles etc
PEO2	Graduates will exhibit their effective skills in Research & Development in Biotechnology field at the National and International levels
PEO3	Graduates gain thorough knowledge in the subject, develop effective communication skills and be good academicians
PEO4	Graduates are encouraged and motivated to become entrepreneurs
Program Specific outcome (PSOs)	
After the successful completion of Biotechnology program, the graduates	
PSO1	Demonstrate the ability to design, conduct experiments and analyze data in the field of biotechnology
PSO2	Demonstrate the ability to independently carry out the research and development work in biotechnology
PSO3	Learn to apply appropriate modern tools and techniques in genome modifications for the welfare of mankind
PSO4	Acquire knowledge of norms and ethics in biotechnology/product development/patent writing
PSO5	Will develop effective entrepreneurial skills, winning business opportunity
PSO6	Develop skills to resolve scientific and technological problems in biotechnology based industries
Program Outcomes (POs)	
On successful completion of the M.Sc. Biotechnology program	
PO1	Acquires Scientific Knowledge on the various subjects related to Biotechnology field
PO2	Develops skills pertaining to various fields of Biotechnology
PO3	Trained to implement their knowledge in research
PO4	Understand the implications on the environment and society at large
PO5	Understand the ethical issues pertaining to the subject
PO6	Students will be able to design new biotechnological products or processes by applying innovative knowledge of different disciplines of biotechnology
PO7	Develops ability to successfully carry out advanced tasks and projects independently in various streams of biotechnology disciplines

SNMV College of Arts & Science

PO8	Demonstrate the ability to carry out the research projects independently
PO9	Develops the ability to conceptualize and carry out collaborative ventures across the disciplines
PO10	Develop skill sets for employability in diverse areas of biotechnology as well as for the higher studies

MSC MB

Program Educational Objectives (PEOs)	
After the successful completion of M. Sc. Microbiology degree course, the students are able to	
PEO1	Recollect the fundamental aspects in the various branches of Microbiology, which enable them to be familiar with emerging and advanced scientific concepts in life sciences
PEO2	Implement the obtained conceptual knowledge through connecting interdisciplinary areas of Microbiology
PEO3	Evaluate the necessity and its effectiveness of scientific application towards the development of society
PEO4	Analyze the advancement in Microbiology in research aspects which lead to new inventions
PEO5	Create innovative ideas in technical areas of Microbiology, to become an industrialist, entrepreneur and a good citizen to the nation
Program Specific outcome (PSOs)	
PSO1	On successful completion of M. Sc. Microbiology degree course, the students are able to
PSO2	Focus on innovation and entrepreneurial thinking to be successful in a rapidly changing world.
PSO3	Develop knowledge in qualitative, quantitative, analytical skills and Fulfill the necessity of Life Sciences stream through clearing NET/ SLET and other competitive exams.
PSO4	Conquer the novel and recent techniques to compete with the societal needs.
PSO6	Impart knowledge on progressing issues and its significance on ethical thinking.
PO5	Create innovative ideas in technical areas of Microbiology, to become an industrialist, entrepreneur and a good citizen to the nation

SNMV College of Arts & Science

DEPARTMENT NAME	
DEPARTMENT NAME	
Course Outcomes	
Courses	**Outcomes**
PO1	Conquer the novel and recent techniques to compete with the societal needs.
PO2	Impart knowledge on progressing issues and its significance on ethical thinking.
PO3	Manipulate the microbes using various molecular biology techniques for the benefit of living organisms.
PO4	Scale up production of microbial metabolites using industrially important microorganism adopting bioprocess technology
PO5	Apply bioinformatics tools for analyzing molecular biology data of Microbes
PO6	Understand the Synthesize of Nano-materials and the impact on microbiological applications.
PO7	Understand the importance of artificial intelligence and machine learning in microbiology and allied applications.

SNMV
College of Arts & Science

Department: Microbiology	
Programme Outcome	A. Students will be able to acquire, articulate, retain and apply specialized language and knowledge relevant to microbiology. B. Students will acquire and demonstrate competency in laboratory safety and in routine and specialized microbiological laboratory skills applicable to microbiological research or clinical methods, including accurately reporting observations and analysis. C. Students will communicate scientific concepts, experimental results and analytical arguments clearly and concisely, both verbally and in writing. D. Students will demonstrate engagement in the Microbiology discipline through involvement in research or internship activities, the Microbiology Student Association club (MSA) and outreach or mentoring activities specific to microbiology.
Programme Specific Outcome	A general course emphasizing distribution, morphology and physiology of microorganisms in addition to skills in aseptic procedures, isolation and identification. This course also includes sophomore level material covering immunology, virology, epidemiology and DNA technology. Recommended for all allied health students. Three hours lecture and four hours lab per week.

Course Outcomes

COURSE	**Outcomes**
Fundamentals of Microbiology	On successful completion of this subject the students will gain basic knowledge about Microbiology starting from history, Basic laboratory techniques and basic knowledge about the micro organisms.
Microbial Diversity	This subject will provide a complete picture about the taxonomical classification of microbes.
Analytical Microbiology	On successful completion of this subject the students should have Knowledge on bioinstrumentation and their application and usages.

Cell Biology	To inculcate knowledge in cell structure and their function.
Bioinstrumentation – Principles and Applications	Enable the student to get sufficient knowledge in principles and applications of bio instruments.
General Biology	To inculcate knowledge in basic biology like cell divisions, functions and human physiology.
Microbial Physiology	To inculcate knowledge in cell divisions, functions and microbial physiology.
Clinical Laboratory Technology	To inculcate knowledge in basic techniques implemented to the analysis of human samples.
Diagnostic Microbiology I (Bacteriology and Serology)	To inculcate knowledge in diagnosing bacteriological disease using serum.
Microbial Genetics	On Successful Completion of this subject the students should have a sound knowledge about the genetics of microbes.
Principles of Immunology	To inculcate knowledge in human immune response towards micro organisms.
Food Microbiology	Enable the student to get sufficient knowledge in relationship between food and microbes, techniques used in food processing.
Medical Microbiology	To inculcate knowledge in relationship between human disease and micro organisms, pathogenicity, laboratory diagnosis and treatment methods.
Environmental and Agricultural Microbiology	To inculcate knowledge in role of micro organisms in eco system and impact created by microbes in agricultural development.
Virology	To inculcate knowledge about virus, their role in causing disease.
Extension Activities	To gain experience in different aspects used in industrial microbiology
Recombinant DNA Technology - I	On Successful Completion of this subject the students should have a sound knowledge about the Recombinant DNA Techniques used in microbiological research.
Enterpreneurial Microbiology	The programme provides a solid foundation for a career working with marketing, project management, business development or venture capital within the biotech, pharmaceutical, medical technology or related industries.
Dairy Microbiology	Focus on food processing, nutrition , food science& food processing technology. And also study methods of refrigeration, material handling and food preservation.
Practical	The aim of the this is to deliver practical knowledge and the implementation of the concepts studied.
Fundamentals of Microbiology	On successful completion of this subject the students will gain basic knowledge about Microbiology starting from history,

SNMV College of Arts & Science

	Basic laboratory techniques and basic knowledge about the micro organisms.
Microbial Physiology and Biochemistry	To inculcate knowledge in cell divisions, functions and microbial physiology and also biochemical properties of molecules
Applied Biotechniques	This subject deals with genome sequencing, microarray analysis, nucleic acid purification, real-time PCR, and cell analysis.
Environmental and Agricultural Microbiology	To inculcate knowledge in role of micro organisms in eco system and impact created by microbes in agricultural development.
Molecular Genetics	On Successful Completion of this subject the students should have a sound knowledge about the genetics of microbes
Microbial Food Technology	Enable the student to get sufficient knowledge in relationship between food and microbes, techniques used in food processing. Enable the student to get sufficient knowledge in relationship between food and microbes, techniques used in food processing.
Bioprocess Technology	On Successful Completion of this subject the students should have a sound knowledge about - combining living matter, in the form of organisms or enzymes, with nutrients under specific optimal conditions to make a desired product Bioprocess Technology is the sub-discipline within Biotechnology which teaches methods oftranslating discoveries of life sciences into practical and industrial products, processes and techniques that can serve the needs of society.
Gene Manipulation and Bioinformatics	On Successful Completion of this subject the students should have a sound knowledge about the genetics of microbes. Core **bioinformatics courses** may include molecular biology, probability, statistics, computing and informatics, while advanced **courses** may cover population genetics, molecular genomic and epigenomic data analysis, biological mathematical modeling, biostatistics, sustainability mathematics and computational neuroscience.
Immunology and Immunotechnology	To inculcate knowledge in human immune response towards micro organisms.
Medical Microbiology	To inculcate knowledge in relationship between human disease and micro organisms, pathogenicity, laboratory diagnosis and treatment methods.
Biotechnology and IPR	Patent Protection, Revenue Generation, Investment Cycle, Reward. Protection with no restrictions
Bionanotechnology	**bionanotechnology**, teaches about to the intersection of **nanotechnology** and biology. ...and also teaches about Concepts that are enhanced through nanobiology like nanodevices (such as biological machines), nanoparticles, and nanoscale .

SNMV College of Arts & Science

Biostatistics and Research Methodology	*Biostatistics* is the application of *statistics* to a wide range of topics in biology To discuss what a “researchable problem” is and to describe how a research problem .
Project and vivavoce	The main objective of Project and viva voice is to inculcate Research interest among students
Industrial training and viva-voce	To gain hands-on experience ’ related to field so that students can relate and reinforce what has been taught at the class room

Department: Biotechnology	
Programme Outcome	**Biotechnology** teaches about biological sciences with engineering technologies that manipulate living organisms and biological systems to produce products that advances healthcare, medicine, agriculture, food, pharmaceuticals and environment control.
Programme Specific Outcome	A general course emphasizing distribution, morphology and physiology of microorganisms in addition to skills in aseptic procedures, isolation and identification. This course also includes sophomore level material covering immunology, virology, epidemiology and DNA technology. Recommended for all allied health students. Three hours lecture and four hours lab per week.
Course Outcomes	
Course	**Outcomes**
Cell biology	This course presents the types and structural details of the basic unit by which all the living things are made of (the cell). Goals: To make the student to understood the concept of cell and their activities. This course presents the types and structural details of the basic unit by which all the living things are made of (the cell). Goals: To make the student to understood the concept of cell and their activities.
Bioinstrumentation	Enable the student to get sufficient knowledge in principles and applications of bio instruments.
Microbiology	This course presents the study of Micro organisms. Goals: To make the student to understood Micro organisms and their participation in day to day activities. Objectives: On successful completion of the

SNMV College of Arts & Science

	subject the student should have understood the Role of microorganisms in the diversity
Biochemistry	This course presents the chemical reactions or metabolic functions in the living system and their regulations. Goals: To make the student to understood the concept of biochemical regulations Objectives: On successful completion of the subject the student should have understood: Basic Structure and metabolism of Biomolecules. UNIT I Structure of atoms and biomolecules: Atomic theory, Valency, Atomic weight
Genetics	This course presents the way characters get transferred through generations and methods to analyze and modify them Goals: To make the student to understood the concept of genes and their behaviour Objectives: On successful completion of the subject the student should have understood: Basic genetics and their role
Molecular Genetics	This course presents the genetics at molecular level Goals: On successful completion of the subject the student should have understood the molecular aspects of genetics
Human Physiology	This course presents the various physiological activities in human being Goals: To make the student to understood the human physiology Objectives: After the completion of the course the student should have understood the various systems in human body and their activities
Plant & Animal Biotechnology	This course presents the application of Plants in Biotechnology Goals: To make the student to understood usage of Plant and Animal products and exploitation of them in Biotechnology. Objectives: On successful completion of the subject, the student should have understood: Crop development, Callus culture, Biotechnological applications of plants, Animal tissue culture, Animal products, production & improvement of them
Immunology	This course presents the basic defense mechanism of animals Goals: To make the student to understood the concept immunology Objectives: On successful completion of the subject the student should have understood: Immunity, Antigen, Antibody, Cells of immune system and their function and regulations
Environmental Biotechnology	his course presents the Study and the Management of the Environment Goals: To make the student to understood Ecology and Conservation of the Environment Objectives: On successful completion of the subject the student should have understood Ecosystem, energy flow and Uses and values of Biodiversity.
Recombinant DNA Technology	his course presents the mechanism of gene manipulation Goals: To make the student to understood the concept of gene manipulation and gene transfer technologies Objectives: On successful completion of the subject, the student should have understood: Manipulation of genes, Transfer techniques, Expression systems and methods of selection

SNMV College of Arts & Science

Diagnostic Tools	his course presents the Diagnostic methods of diseases Goals: To make the student to understood the concept of Diagnostic methods Objectives: On successful completion of the subject the student should have understood: Examination of Blood, Urine and CSF.
Microbial Biotechnology	This course presents the utility of Microbes Goals: To make the student to understood the applications of Microbes Objectives: On successful completion of the subject the student should have understood: Fermentation, Microbial products, Vaccine and antibiotics.
Pharmacology	This course presents Medicines for different disease Goals: To make the student to understood the concept therapy. Objectives: On successful completion of the subject the student should have understood: Drug administration, drug metabolism and allergy.–
Agricultural Biotechnology	This course presents biotechnology in agriculture, growth and historical perspective of agricultural biotechnology. Agriculture biotechnology – Risks and applications. Transgenic plants resistance to biotic and abiotic stress.
Biotechnological approach for waste water treatment	This course presents about waste water environment. Domestic and industrial waste water flow rate and characteristics. Design of waste water network, waste water treatment process. Waste water pretreatment – screenings, grit channels, filtration and equalization, primary treatment- chemically enhanced primary sedimentation, sludge quantity from primary settlings
Bioethics & Biosafety	This course has been designed to provide the students insights into the valuable areas of biotechnology, which plays a crucial role in determining its future use and applications. Objective: Students get an idea about the advantages and disadvantages of biotechnological applications, ethical implications and intellectual property rights. Goal: To study the diversity of plants and animal life in a particular habitat, ethical issues and potential of biotechnology for the benefit of man kind. Unit I Introduction to ethics/bioethics – framework for ethical decision making; biotechnology
Molecular Biology and Genetics	. This course Drosophila Presents about Section culture and maintenance. 14. Identification of Mutants - Physical and Chemical Methods. 15. Experiments to determine Mendel's law. 16. Monohybrid and dihybrid cross using plants. 17. Sex chromatin (buccal smear). Skill Based Subje
Biochemistry	This course presents the chemical reactions or metabolic functions in the living system and their regulations. Goals: To make the student to understood the concept of biochemical regulations Objectives: On successful completion of the subject the student should have understood: Basic Structure and metabolism of Biomolecules
Applied Microbiology	This course presents the study of Micro organisms. Goals: To make the student to understood Micro organisms and their participation in day to day activities. Objectives: On

SNMV College of Arts & Science

	successful completion of the subject the student should have understood the Role of microorganisms in the diversity
Bioinstrumentation & Biostatistics	This course presents study of Instruments of Biological Importance. Goals: To make the student to understood the tools used in the laboratory. Objectives: On successful completion of the subject, the student should have understood the analytical techniques in the field of Biotechnology
Immunology & Immunotechnology	This course presents the basic defense mechanism of animals Goals: To make the student to understood the concept immunology Objectives: On successful completion of the subject the student should have understood: Immunity, Antigen, Antibody, Cells of immune system and their function and regulations
Genetic Engineering	This course presents the genetics at molecular level Goals: On successful completion of the subject the student should have understood the molecular aspects of genetics
Plant Biotechnology	This course presents the application of Plants in Biotechnology Goals: To make the student to understood usage of Plant products and exploitation of them in Biotechnology. Objectives: On successful completion of the subject, the student should have understood: Crop development, Callus culture, Biotechnological applications of plants.
Animal Biotechnology	This course presents the application of animal Biotechnology Goals: To make the student to understood usage of Animal products and exploitation of them in Biotechnology. Objectives: On successful completion of the subject, culture, , Animal tissue culture, Animal products, production & improvement of them.
Bioprocess Technology	Subject description: This paper presents the basics of fermentation technology, media components as applied to lab scale, pilot scale and industrial scale upstream and down stream processing. Goals: This paper is introduced to acquire requisite skills for the design and development of bioreactors, production optimization, and preparation of sterile base materials for downstream processing. Objectives: On successful completion of the course the students should have understood the basics of fermentation technology and learnt the concept of screening, optimization and maintenance of cultures.
Pharmaceutical Biotechnology	Subject description This paper presents the basics of: of pharmaceutical industry, Drugs discovery , Development phases and Drug Manufacturing Process. Drugs and Cosmetics ACT and regulatory aspects. Definition: Generics and its advantages . Biogenerics and Biosimilars... Protein-based biopharmaceuticals.
Genomics & Proteomics	Subject description This paper presents the basics of: mapping, Genome sequencing, Genome sequence assembly: Base calling and assembly programs, Genome annotation: Gene ontology, Automated genome annotation, Annotation of

SNMV College of Arts & Science

	hypothetical proteins and Genome economy. Comparative genomics: Whole genome alignment, Finding a minimal genome, Lateral gene transfer, Within-genome approach and Gene order and Gene
Bio-entrepreneurship	The objectives of this course are to teach students about concepts of entrepreneurship including identifying a winning business opportunity, gathering funding and launching a business, growing and nurturing the organization and harvesting the rewards. Student Learning Outcomes: Students should be able to gain entrepreneurial skills, understand the various operations involved in venture creation, identify scope for entrepreneurship in biosciences and utilize the schemes promoted through knowledge centres and various agencies.
Occupational health and industrial safety	Subject Description : This course deals with the study of industrial safety, various safety measures and its applications. It also gives emphasis on prevention and control methods. Goals Students get on idea about the advantages and disadvantages of occupational & Industrial safety applications, principles & functions in safety management. Objectives : To impart knowledge on various occupational health hazards and also safety measures to be taken in the work place.
Bioethics, biosafety and IPR	Subject description : This course presents the principles and applications of Biotechnology explaining the biomolecules and applications of biophysical methods. Goals : To enable the students to learn the immuno techniques and radio labeling techniques. Objectives : On successful completion of the course the students will be aware of 1. Microscopic techniques 2. Electro physiological methods. 3. Biomolecules structure determination using x-ray diffraction
Biotechniques	Subject description : This course presents the principles and applications of Biotechnology explaining the biomolecules and applications of biophysical methods. Goals : To enable the students to learn the immuno techniques and radio labeling techniques
Conservation biology	Subject description : This course presents the principles Components of Biodiversity (Ecosystem, Genetic and Species diversity) - Assigning values to biodiversity - Species concepts - Animal diversity: (Distribution, inventory, species richness) - Biodiversity Hotspots (Western Ghats, Indo-Burma region).

SNMV College of Arts & Science

MCOM

Program Educational Objectives (PEOs)	
PEO1	To assume jobs of executive cadre in corporates
PEO2	To offer investment /finance/tax consultancy and business analytics
PEO3	To manage firms offering financial services
PEO4	To pursue research in commerce /Management
PEO5	To exercise professional skills and values

Program Specific outcome (PSOs)	
PSO1	Undertake a research work with specializations
PSO2	Use software tools to carry out a specified financial analysis of a business application
PSO3	Apply the knowledge gained during the course of the program to solve the real time problems
PSO4	Meet the needs of industry 4.0
PSO5	Communicate effectively with professionals

SNMV
College of Arts & Science

	Program Outcomes (POs)
PO1	To ensure all round development of personality required for an executive
PO2	To build necessary skills concerning commercial theories and applications to business by using business analytics
PO3	To obtain practical knowledge in commercial activities by understanding training in commercial and industrial establishments
PO4	To develop a broad range of business skills and commercial knowledge, development of general and specific capabilities to meet the current and future expectations of business and industry
PO5	To enrich the necessary competencies and creativity to undertake entrepreneurship as a desirable and feasible career option

DEPARTMENT NAME: PG COMMERCE	
Course Outcome (COs)	
Managerial Economics	❖ Acquire the knowledge about the nature and scope of Managerial Economics, demand analysis and law of variable proportion. ❖ Understand the role of Managerial Economist, goal of corporate enterprises, demand determinants, types of market, national income and public finance. ❖ Have thorough knowledge about various types of costs and revenues and Break Even point analysis. ❖ Analyze role of managerial economist in demand analysis, cost and production analysis. ❖ Evaluate the value of enterprises, pricing and output decisions, business cycles and causes and remedies of industrial sickness
Corporate Accounting	❖ Comprehend the accounting provisions in the Companies Act relating to preparation of final accounts of a company. ❖ Prepare accounts relating to Amalgamation, Absorption and Alteration of share capital. ❖ Prepare accounts at the time of liquidation of companies. ❖ Develop the knowledge on various accounting aspects pertaining to valuation of shares, holding company accounts and banking and insurance companies ❖ Be familiar with the theoretical framework of Human resource accounting, Government accounting, Responsibility accounting and Environmental Accounting
Information Technology In Business	❖ Analyze the impact of hardware and software in business ❖ Discuss the internet security aspects and e-business communication modes ❖ Construct the knowledge in data processing ❖ Examine the key features of machine language and input, output devices ❖ Construct the knowledge in e-commerce application and current trends in e-commerce
Marketing Management	❖ Recollect the marketing concepts, types and modern marketing concept ❖ Identify the macro and micro environments of a market and buyer behavior ❖ Locate the different types of products, product line, product mix and pricing decisions ❖ Evaluate the important of channels of distribution and promotional mix ❖ Acquire the knowledge to market the agricultural produce and about marketing research.
Business Research Methods	❖ Apply a range of quantitative and / or qualitative research techniques to business and management problems / issues ❖ Organize and conduct research in a more appropriate sampling method manner.

SNMV College of Arts & Science

	❖ Develop necessary critical thinking skills in order to evaluate different statistical tools used in research ❖ Demonstrate knowledge and understanding of data analysis and interpretation in relation to the research process by testing hypothesis. ❖ Write a research report and thesis.
Business Environment	❖ Inspect the internal and external environment pertaining to business ❖ Evaluate the industry policy and regulations ❖ Analyze the policies and legal provisions of the government ❖ Examine the impact of financial environment and labour legislation in india ❖ Asses the concepts of ethics in business and the relevant fields
Applied Cost Accounting	❖ Define the classification of cost, methods and techniques ❖ Evaluate cost sheet and material and labour control ❖ Differentiate cost control and cost reduction tools and techniques ❖ Solve labour, overhead and process costing methods ❖ Gain hands on experience in reconciliation of cost and financial accounting.
Human Resources Management	❖ Explain human resources planning, dealing with surplus and deficient man power ❖ Describe the meanings of terminology and tools used in managing employees effectively ❖ Prepare a selection strategy for a specific job ❖ Gain knowledge in develop, analyze and apply advanced training strategies and specifications for the delivery of training programs ❖ Compare and contrast the different techniques involved in the performance appraisal process.
Direct Taxes	❖ Calculate computation of taxable income under various sources. ❖ Recollect the concept of tax administration and practices. ❖ Acquire the knowledge about latest provision of income tax act. ❖ Gain expert knowledge regarding the legitimate way of Tax Planning and Management. ❖ Able to pertain procedure for assessment and e-filing.
Management Accounting	❖ Recollect the concept and importance of management accounting. ❖ Understand the role of managerial accounting in management decision making. ❖ Get familiarize various methods and technique of managerial accounting. ❖ Analyze the method and technique of management accounting used for managerial decision making. ❖ Able to prepare budget and budgetary control
Financial Management	❖ Recollect the concept and importance of financial management. ❖ Have thorough knowledge about various sources of long-term and short-term finance.

SNMV College of Arts & Science

	❖ Examine various method and technique for calculating cost of capital. ❖ Examine different type leverage technique followed by a organization. ❖ Expert knowledge about various dividend policies.
Internet & E-Commerce	❖ Acquire the knowledge about various trends in business. ❖ Explore information technology in every aspect of business. ❖ Examine the role of e- commerce in the present business scenario. ❖ Discuss about the cyber security and cyber regulation in global business world. ❖ Discuss future relevance internet business in global business world
Investment Management	❖ Recall various investment avenues and personal finance. ❖ Understand securities markets, regulation and its instruments ❖ Examine fundamental analysis of an organization using financial data information. ❖ Examine technical analysis of an organization using financial data information. ❖ Evaluate risk return of securities in different investment proposal.
International Business	❖ Recall the concept of international business. ❖ Understand the level of changes international business in global era. ❖ Examine the role of global financial markets and instrument. ❖ Evaluate various functions of WTO, IMF AND IBRD. ❖ Understand various theories of foreign exchange.
Principles And Practice Of Insurance	❖ Expert knowledge about general principles and concepts of insurance, insurance practices and procedures ❖ Examine various types of insurance and its functions. ❖ Discuss about legal framework about different insurance policies. ❖ Awareness about differed health policies and group insurance ❖ Examine IRDA regulation act.
Industrial Law	❖ Understand updated regulatory framework followed by the companies. ❖ Examine various type of industrial act and its functions. ❖ Analyze various opportunities available in various legal compliances so as to enable them employable. ❖ Create knowledge about current practice of industrial law ❖ Able to calculate Payment of Gratuity.
Services Marketing	❖ Examine the nature of services, and distinguish between products and services ❖ Identify the major elements needed to improve the marketing of services ❖ Develop an understanding of the roles of relationship marketing and customer service in adding value to the customer's perception of a service

SNMV College of Arts & Science

	❖ Examining the key marketing services and market segmentation ❖ Evaluating service quality, measurement, causes and problems, principles guiding improving of quality
Marketing Of Financial Services	❖ Understand how marketing theory underpins the marketing of financial services ❖ Appreciate how recent thinking in marketing and services marketing applies to financial services ❖ Identify key issues for marketers of financial services ❖ Interpretation of various reforms and types of insurance services related to life insurance ❖ Discussing about the concepts based on real estate industry and their investment pattern in markets, securitization mechanism's merits in India.
Marketing Of Health Services	❖ Understand and critically and effectively apply a number of tools available to marketing managers in healthcare sector ❖ Appreciate and exercise critical judgment in implementing the marketing strategies in the health care sector ❖ Analyse real-life situations and provide solutions to challenges ❖ Assessing various online critical judgment in implementing the marketing strategies in the health care sector ❖ Adapting various legal systems related to consumer rights & protection, promotion agencies and food nutrition's in India
Travel And Hospitality Services	❖ Apply relevant technology for the production and management of travel and hospitality experiences. ❖ Plan, lead, organize and control resources for effective and efficient travel and hospitality operations. ❖ Create, apply, and evaluate marketing strategies for travel and hospitality destinations and organizations. ❖ Discussing about various hospitality services and its classification of hotels by price level. ❖ Examining the various behavioural profile of users and related to hotel marketing in Indian perspective.
Financial Markets And Institutions	❖ Describe Indian Financial System and securities exchange board of India. ❖ Classify Small Savings, Provident Funds, Unit Trust of India and Mutual Funds. ❖ Explore activities of non-financial banking ❖ Assessing about various investment information and credit rating agency ❖ Identifying about various financial institutions and related to its working and functions
Indian Stock Exchanges	❖ Describe Indian stock exchanges and securities exchange board of India. ❖ Classify and regulate the trading transactions with proper rules and regulations. ❖ Explore activities of the investors of stock exchange ❖ Determining the securities contracts regulation act and important provisions related to SEBI functions workings.

SNMV College of Arts & Science

	❖ Examining various basic concepts of internet stock trading features
Futures And Options	❖ Evaluating the concepts and market mechanics of different types of financial derivatives ❖ Analyze how financial derivatives are valued, based on the noarbitrage and risk-neutral valuation approaches ❖ Evaluate the instruments that can be used to implement risk management strategies. ❖ Discovering various pay off for buyer of futures and other options like hedging and speculation. ❖ Identifying the evolution of commodity markets and exchanges in india.
Fundamental And Technical Analysis	❖ Examining various concepts related to investment and approaches to security valuation. ❖ Outline the theoretical contexts of the fundamental and technical analysis ❖ Summarize work on the basic tools used by technical analysts ❖ Determining the various theory and technical analysis related meaning ❖ Evaluate securities by measuring the intrinsic value of stock
Principles Of International Trade	❖ Remember the major models of international trade and be able to distinguish between them in terms of their assumptions and economic implications ❖ Apply the principle of comparative advantage and its formal expression and interpretation within different theoretical models ❖ Simplify form the theory of international trade as well as international trade policy and to demonstrate the relevance of the theory ❖ Discussing about various international investments and its limitations, factors affected by investment Indian companies ❖ Summarize concepts based on multinational corporation and about the globalizations
Export And Import Procedure	❖ Recall the export and import licensing procedure ❖ Understand the functions of export and import promotion council ❖ Analyse the knowledge about customs procedure ❖ Evaluate the trading procedure ❖ Apply the export and import procedure for the given project
Institutions Facilitating International Trade	❖ Demonstrate the role and significance of foreign trade and its markets with its impact on various sectors in the economy. ❖ Understand the conditions of financial markets and its impact in facilitating the international trade ❖ Identifying the awareness on the changes in the composition as well as direction of foreign trade after international trade and know the causes and effects of deficits in the balance of payments in facilitating institutions. ❖ Examine international monetary fund and concepts its principles

SNMV College of Arts & Science

	❖ Identifying various concepts based on international development association and features
India's International Trade	❖ Identify the basic difference between inter-regional and international trade ❖ Apply the legal framework in the real-life businesses related to foreign trade regulations in India. ❖ Evaluate India's international trade performance about its objectives and principles. ❖ Identifying various concepts related to imports related to law of protection their rights ❖ Discovering more about global trades and developing countries and major problems faced by sectors.

M.Com CA

Program Educational Objectives (PEOs)	
The M.Com (Computer Applications) program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To understand an assignment in an e-commerce forum
PEO2	To manage the retail outlet independently
PEO3	To assume the responsibilities of computer operation in small business engaged either in manufacturing or rendering services.
PEO4	Involve in lifelong learning
PEO5	Exercise professional skills and values in the ICT sector
Program Specific outcome (PSOs)	
After the successful completion of the M. Com (Computer Applications) program, the students are expected to	
PSO1	To gain practical insights in project preparation and analysis of business data
PSO2	Use software tools to carry out a specified financial analysis for a corporate sector
PSO3	Apply the knowledge gained during the course of the program to solve the real time problems
PSO4	To meet the needs of industry 4.0

SNMV College of Arts & Science

PSO5	Communicate effectively with ICT professionals
Program Outcomes (POs)	
On successful completion of the M. Com (Computer Applications) program	
PO1	To be conversant with recent development in commerce and trust areas in the field of computer
PO2	To gain computer knowledge and make use of it effectively in the field of commerce
PO3	To design computer software to suit the needs of industry and business
PO4	To acquire skill in doing business in the electronic environment
PO5	To become worthy citizens of the nation by enriching knowledge in the application of computer in commerce
Course	**Outcome**
MANAGERIAL ECONOMICS	Acquire the knowledge about the nature and scope of Managerial Economics, demand analysis and law of variable proportion.
MARKETING MANAGEMENT	Recollect the marketing concepts, types and modern marketing concept.

SNMV
College of Arts & Science

DATABASE MANAGEMENT SYSTEM	Describe the fundamental elements of relational database management systems
COMPUTER APPLICATIONS PRACTICALS I – MS OFFICE AND ORACLE	Evaluate the hierarchical approach and program communication block
SERVICES MARKETING	Examine the nature of services, and distinguish between products and services
CORPORATE ACCOUNTING	Comprehend the accounting provisions in the Companies Act relating to preparation of final accounts of a company.
HUMAN RESOURCES MANAGEMENT	Explain human resources planning, Dealing with surplus and deficient man power.
BUSINESS RESEARCH METHODS	Apply a range of quantitative and / or qualitative research techniques to business and management problems / issues
OBJECT ORIENTED PROGRAMMING WITH C++	Outline the essential features and elements of the C++ programming language.
COMPUTER APPLICATIONS PRACTICALS-II : TALLY & C++ TALLY	To gain knowledge in tally package.
MARKETING OF FINANCIAL SERVICES	Understand how marketing theory underpins the marketing of financial services
COSTAND MANAGEMENT ACCOUNTING	Recall the components of cost
VISUAL BASIC	Recall various form of visuals

SNMV
College of Arts & Science

FINANCIAL MANAGEMENT	Recollect the concept and importance of financial management.
COMPUTER APPLICATIONS PRACTICAL III – VB	Analyze the method of database working.
MARKETING OF FINANCIAL SERVICES	Understand how marketing theory underpins the marketing of financial services
INVESTMENT MANAGEMENT	Recall various investment avenues and personal finance.
DIRECT TAXES	Calculate computation of taxable income under various sources.
JAVA PROGRAMMING AND HTML	It help to understand the concept of Java and HTML
TRAVEL AND HOSPITALITY SERVICES	Apply relevant technology for the production and management of travel and hospitality experiences.

M A ENGLISH

Program Educational Objectives (PEOs)	
PEO1	Acquire a level of subject knowledge eligible to teach high school and higher secondary students
PEO2	Apply their language skills to become successful trainers in communication
PEO3	Choose teaching at the college level with a passion for the subject
PEO4	Apply their knowledge on various areas of literature to pursue research
PEO5	Make use of the acquired writing skills to grab a lot of opportunites as content writers and editors
PEO6	Utilize the avenues for skilled postgraduates as columnists and creative artists.
PEO7	Choose online platforms to become bloggers and reviewers

PEO8	Select fields lke journalism to get employed as reporters, editors and news readers
PEO9	Identify positions at the state and central level like the civil services and attempt competitive examinations
PEO10	Develop their creative skills thereby turning into poets and writers of wide acclaim
Program Specific outcome (PSOs)	
PSO1	Understand the various genres of English Literature
PSO2	Acquire a sound knowledge of the periods of English literature and writers during the period
PSO3	Identify the features of each period in the given text.
PSO4	Learn the important movements and theories practiced in the different periods.
PSO5	Develop good communication skills.
PSO6	Select new areas of research.
PSO7	Show interest in the literature of the world.
PSO8	Demonstrate translation skills by translating simple texts.
PSO9	Recall concepts and texts to clear competitive examinations.
PSO10	Make use of the experience of the morals and values learnt from literature in transforming society.

SNMV College of Arts & Science

Program Outcomes (POs)

PO1	Maximize their knowledge level of the English Literature.
PO2	Develop social responsibility as literature reflects life.
PO3	Acquire sound knowledge of classical writers and texts.
PO4	Apply the theories taught to a given text.
PO5	Identify research prospects and areas.
PO6	Demonstrate good communicative skills.
PO7	Build creative skills through the reading of different literatures.
PO8	Discover the teaching skills in them through the seminars given during the program.

PO9	Organize and manage events.
PO10	Create a better outlook of life accepting challenges from the learning experience.

MSC COMPUTER SCIENCE

Program Educational Objectives (PEOs)	
The M.Sc. CS program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To enrich the students with the clear picture of the course objectives and to map their requirements.
PEO2	To enable the students, to understand the core concepts, visualize and to apply them in the real time scenarios.
PEO3	To impart the need for consistent learning, importance of research & development for the welfare of the society and to the nation at large.
Program Specific outcome (PSOs)	
After the successful completion of M.Sc. CS program, the students are expected to	
PSO1	Able to analyze, design and develop problem solving skills in the discipline of computer science.
PSO2	Acquire evaluation of potential benefits of alternative solution in designing software and/or hardware systems in broad range of open source programming languages to withstand technological changes.
PSO3	Able to pursue careers in IT industry/ consultancy/ research and development, teaching and allied areas related to computer science.
PSO4	Adapt to the continuous technological change in computational science and update themselves to meet the industry requirements and standards.
PSO5	Apply the practices and strategies of computer science for software project development to deliver a quality software product and contribute to research in the chosen field and perform effectively.
Program Outcomes (POs)	
On successful completion of the B.Sc. Computer Science program	
PO1	Develop creativity and problem solving skills with the knowledge of computing and mathematics
PO2	Ability to develop and carry out experiments, interpret and infer data
PO3	Design algorithms and develop software to aid solutions to industry and governments.

SNMV College of Arts & Science

PO4	Review the latest technology and tool handling mechanism.
PO5	Analyze the outcome to solve global environment related issues.
PO6	Apply the knowledge in lifelong learning journey to equip themselves
PO7	Identify the perspective of business practices, risks and limitations.
PO8	Work with professional and ethical values.
PO9	Formulate the responsibilities of human rights and entrepreneurial spirit.
PO10	Understand the methods to communicate effectively and work collectively.

SNMV
College of Arts & Science

MSC COMPUTER SCIENCE	
COMPUTER SCIENCE	
Course Outcomes	
Courses	**Outcomes**
ANALYSIS & DESIGN OF ALGORITHMS	1 Get knowledge about algorithms and determines their time complexity. Demonstrate specific search and sort algorithms using divide and conquer technique. K1,K2 2 Gain good understanding of Greedy method and its algorithm. K2,K3 3 Able to describe about graphs using dynamic programming technique. K3,K4 4 Demonstrate the concept of backtracking & branch and bound technique. K5,K6 5 Explore the traversal and searching technique and apply it for trees and graphs. K6
OBJECT ORIENTED ANALYSIS AND DESIGN & C++	1 Understand the concept of Object-Oriented development and modeling techniques K1,K2 2 Gain knowledge about the various steps performed during object design K2,K3 3 Abstract object-based views for generic software systems K3 4 Link OOAD with C++ language K4,K5 5 Apply the basic concept of OOPs and familiarize to write C++ program K5,K6
PYTHON PROGRAMMING	1 Understand the basic concepts of Python Programming K1,K2 2 Understand File operations, Classes and Objects K2,K3 3 Acquire Object Oriented Skills in Python K3,K4 4 Develop web applications using Python K5 5 Develop Client Server Networking applications K5,K6
ADVANCED SOFTWARE ENGINEERING	1 Understand about Software Engineering process K1,K2 2 Understand about Software project management skills, design and quality management K2,K3 3 Analyze on Software Requirements and Specification K3,K4 4 Analyze on Software Testing, Maintenance and Software Re-Engineering K4,K5 5 Design and conduct various types and levels of software quality for a software project K5,K6
PRACTICAL I : ALGORITHM AND OOPS LAB	1 Understand the concepts of object oriented with respect to C++ K1,K2 2 Able to understand and implement OOPS concepts K3,K4 3 Implementation of data structures like Stack, Queue, Tree , List using C++ K4,K5 4 Application of the data structures for Sorting, Searching using different techniques. K5,K6

SNMV College of Arts & Science

PRACTICAL II : PYTHON PROGRAMMING LAB	1 Able to write programs in Python using OOPS concepts K1,K2 2 To understand the concepts of File operations and Modules in Python K2,K3 3 Implementation of lists, dictionaries, sets and tuples as programs K3,K4 4 To develop web applications using Python K5,K64 Inspect and utilize the appropriate Google Apps for education effectively K3,K5
DATA MINING AND WAREHOUSING	1 Understand the basic data mining techniques and algorithms K1,K2 2 Understand the Association rules, Clustering techniques and Data warehousing contents K2,K3 3 Compare and evaluate different data mining techniques like classification, prediction, Clustering and association rule mining K4,K5 4 Design data warehouse with dimensional modeling and apply OLAP operations K5,K6 5 Identify appropriate data mining algorithms to solve real world problems K6
ADVANCED OPERATING SYSTEMS	1 Understand the design issues associated with operating systems K1,K2 2 Master various process management concepts including scheduling, deadlocks and distributed file systems K3,K4 3 Prepare Real Time Task Scheduling K4,K5 4 Analyze Operating Systems for Handheld Systems K5 5 Analyze Operating Systems like LINUX and iOS K5,K6
ADVANCED JAVA PROGRAMMING	1 Understand the advanced concepts of Java Programming K1,K2 2 Understand JDBC and RMI concepts K2,K3 3 Apply and analyze Java in Database K3,K4 4 Handle different event in java using the delegation event model, event listener and class K5 5 Design interactive applications using Java Servlet, JSP and JDBC K5,K6
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	1 Demonstrate AI problems and techniques K1,K2 2 Understand machine learning concepts K2,K3 3 Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning K3,K4 4 Analyze the impact of machine learning on applications K4,K5 5 Analyze and design a real world problem for implementation and understand the dynamic behavior of a system K5,K6
PRACTICAL III : DATA MINING USING R	1 Able to write programs using R for Association rules, Clustering techniques K1,K2 2 To implement data mining techniques like classification, prediction K2,K3 3 Able to use different visualizations techniques using R K4,K5 4 To apply different data mining algorithms to solve real world applications K5,K6
PRACTICAL IV : ADVANCED JAVA LAB	1 Understand to the implement concepts of Java using HTML forms, JSP & JAR K1,K2 2 Must be capable of implementing JDBC and RMI concepts K3,K4 3 Able to write Applets with Event handling mechanism K4,K5

SNMV College of Arts & Science

	4 To Create interactive web based applications using servlets and jsp K5,K6
DIGITAL IMAGE PROCESSING	1 Understand the fundamentals of Digital Image Processing K1,K2 2 Understand the mathematical foundations for digital image representation, image acquisition, image transformation, and image enhancement K2,K3 3 Apply, Design and Implement and get solutions for digital image processing problems K3,K4 4 Apply the concepts of filtering and segmentation for digital image retrieval K4,K5 5 Explore the concepts of Multi-resolution process and recognize the objects in an efficient manner K5,K6
CLOUD COMPUTING	1 Understand the concepts of Cloud and its services K1,K2 2 Collaborate Cloud for Event & Project Management K3,K4 3 Analyze on cloud in – Word Processing, Spread Sheets, Mail, Calendar, Database K4,K5 4 Analyze cloud in social networks K5,K6 5 Explore cloud storage and sharing K
NETWORK SECURITY AND CRYPTOGRAPHY	1 Understand the process of the cryptographic algorithms K1,K2 2 Compare and apply different encryption and decryption techniques to solve problems related to confidentiality and authentication K2,K3 3 Apply and analyze appropriate security techniques to solve network security problem K3,K4 4 Exploresuitable cryptographic algorithms K4,K5 5 Analyze different digital signature algorithms to achieve authentication and design secure applications K5,K6
DATA SCIENCE & ANALYTICS	1 Understand the concept of data science and its techniques K1,K2 2 Review data analytics K2,K3 3 Apply and determine appropriate Data Mining techniques using R to real time applications K3,K4 4 Analyze on clustering algorithms K4,K5 5 Analyze on regression methods in AI K6
PRACTICAL V : DIGITAL IMAGE PROCESSING Using MATLAB	1 To write programs in MATLAB for image processing using the techniques K1,K2 2 To able to implement Image Enhancements & Restoration techniques K2,K3 3 Capable of using Compression techniques in an Image K3,K4 4 Must be able to manipulate the image and Segment it K5,K6
PRACTICAL VI : CLOUD COMPUTING LAB	1 Understand the concepts of object oriented with respect to C++ K1,K2 2 Able to understand and implement OOPS concepts K3,K4 3 Implementation of data structures like Stack, Queue, Tree , List using C++ K4,K5 4 Application of the data structures for Sorting, Searching using different techniques. K5,K6
PRACTICAL VII : WEB APPLICATION	1 Understand & implement the basic HTML tags to create static web pages K1,K2 2 Capable of using hyperlinks, frames , images, tables, ...in a web page K2,K3

SNMV College of Arts & Science

DEVELOPMENT AND HOSTING	3 Able to write dynamic web applications using HTML forms K4,K5 4 Must be able to write dynamic web applications in PHP & HTML tags using XAMPP. K5,K6
MULTIMEDIA AND ITS APPLICATIONS	1 Understand the basic concepts of Multimedia K1,K2 2 Demonstrate Multimedia authoring tools K2,K3 3 Analyze the concepts of Sound, Images, Video & Animation K4 4 Apply and Analyze the role of Multimedia in Internet and real time applications K4,K5 5 Analyze multimedia applications using HDTV K5,K6
EMBEDDED SYSTEMS	1 Understand the concept of 8051 microcontroller K1,K2 2 Understand the Instruction Set and Programming K2,K3 3 Analyze the concepts of RTOS K3,K4 4 Analyze and design various real time embedded systems using RTOS K5 5 Debug the malfunctioning system using various debugging techniques K5,K6
INTERNET OF THINGS	1 Understand about IoT, its Architecture and its Applications K1,K2 2 Understand basic electronics used in IoT & its role K2,K3 3 Develop applications with C using Arduino IDE K4 4 Analyze about sensors and actuators K5,K6 5 Design IoT in real time applications using today's internet & wireless technologies K6
CRITICAL THINKING, DESIGN THINKING AND PROBLEM SOLVING	1 Understand the concepts of Critical thinking and its related technology K1,K2 2 Focus on the explicit development of critical thinking and problem solving skills K2,K3 3 Apply design thinking in problems K3,K4 4 Make a decision and take actions based on analysis K4,K5 5 Analyze the concepts of Thinking patterns, Problem solving & Reasoning in real time applications K5,K6
MOBILE COMPUTING	1 Understand the need and requirements of mobile communication K1,K2 2 Focus on mobile computing applications and techniques K2,K3 3 Demonstrate satellite communication in mobile computing K4 4 Analyze about wireless local loop architecture K5,K6 5 Analyze various mobile communication technologies K6
BLOCK CHAIN TECHNOLOGY	1 Demonstrate blockchain technology and crypto currency K1,K2 2 Understand the mining mechanism in blockchain K2 3 Apply and identify security measures, and various types of services that allow people to trade and transact with bitcoins K3,K4 4 Apply and analyze Blockchain in health care industry K4,K5 5 Analyze security, privacy, and efficiency of a given Blockchain system K5,K6
WEB SERVICES	1 Understand web services and its related technologies K1,K2 2 Understand XML concepts K2,K3 3 Analyze on SOAP and UDDI model K4,K5

SNMV College of Arts & Science

	4 Demonstrate the road map for the standards and future of web services K5 5 Analyze QoS enabled applications in web services K5,K6
ROBOTIC PROCESS AUTOMATION FOR BUSINESS	1 Demonstrate the benefits and ethics of RPA K1,K2 2 Understand the Automation cycle and its techniques K2 3 Draw inferences and information processing of RPA K3,K4 4 Implement & Apply RPA in Business Scenarios K5 5 Analyze on Robots & leveraging automation K5,K6
Data Mining	1 Identify data mining tools and techniques in building intelligent machines understand K1-K2 2 Analyze various data mining algorithms in applying in real time applications. K2-K4 3 Demonstrate the data mining algorithms to combinatorial optimization problems K2-K3 4 Illustrate the mining techniques like association, classification and clustering on transactional databases.K2-K3 5 Perform exploratory analysis of the data to be used for mining. K3-K6
Open Source Software	1 Understand the significance of open source practices and guidelines. K2 2 Manipulate open source databases based on user requirements K3 3 Implement web programming with PHP K3 4 Integrate open source web frameworks in an application K4 5 Write desktop and web applications with Python K6
Internet of Things (IoT)	1 To understand the fundamentals of Internet of Things. K1 2 To know the basics of communication protocols and the designing principles of Web connectivity. K2 3 To gain the knowledge of Internet connectivity principles K2-K3 4 Designing and develop smart city in IoT K2-K3 5 Analyzing and evaluate the data received through sensors in IOT. K4-K5
Programming Lab – Software Testing	1 Understand the importance of software quality/software testing and apply software testing techniques for information systems development. K1 2 Generate test cases from software requirements using various test processes for continuous quality improvement. K2 3 Understand flow graphs and apply path testing. K3 4 Apply software testing techniques in commercial environments and assess the adequacy of test suites using control flow, data flow and program mutation. K4 5 Identify the inputs and deliverables of the testing process and work together as a team in preparing a report K6

SNMV College of Arts & Science