Dr. Arun Patil
Principal

Ref. No.:

Date:

CRITERIAN II	
Key Indicator	**2.6 Student performance and learning outcomes**
Metric No.	**2.6.1 Programme and course outcomes for all programmes offered by institution are stated and displayed on website and communicated to teachers and students**

VISHWAKARMA COLLEGE OF ARTS, COMMERCE & SCIENCE BRACT PUNE-48.

Dr. Arun R. Patil
PRINCIPAL
Vishwakarma College of Arts
Commerce & Science
Kondhwa (Bk.), Pune - 411

Table of Contents

Name of the Programme: B.Com.

Name of the class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
F.Y.BCOM	111	Compulsory English-I	**CO1**	Students will develop the students overall linguistic competence and communicative skills
			CO2	Student will develop written and Communication Skills to improves their prospects of employability
F.Y.BCOM	112	Financial Accounting- I	**CO1**	Students will be able to acquire in-depth knowledge
			CO2	Students will be able to acquire in-depth knowledge
			CO3	Students will be able to understand the process and importance of conversion of single entry into double entry system
			CO4	Students will gain knowledge about GST and its implications.
F.Y.BCOM	113	Business Economics-1	**CO1**	Students will understand basic concepts of micro economics
			CO2	Will be able to analyze and interpret ,Will know cardinal and ordinal approach
			CO3	Will understand the concept of consumer surplus, Will understand the concept of demand and elasticity of demand
			CO4	Will understand the concept of supply and able to interpret equilibrium in the market
			CO5	Will understand revenue concept ,Will know economies and diseconomies of scale
F.Y.BCOM	114 (A)	Business Mathematics and Statistics – I	**CO1**	Students will be able to apply concepts of interests and annuities to calculate EMI, prepare amortization schedule, calculate insurance premiums etc.
			CO2	Students will be able calculate dividend, brokerage on shares and mutual funds. Also, students will be able to able to identify the contribution of shares and mutual funds in systematic investment plans and to select best investment options

			CO3	Students will be able to recognize and classify different types of data. Students will be able to take a sample of appropriatesize using suitable method of sampling.
			CO4	Students will be able to calculate measuresof central tendency and measures of dispersion. Students will be able to use appropriate measure of central tendency ormeasure of dispersion for given data to given problems from business or economics.
F.Y.BCOM	114 (B)	Computer Concepts and Application-I	**CO1**	Students familiar with the basics of Operating System and business communication tools.
			CO2	Students familiar with basics of Network, Internet and related concepts.
			CO3	Students about applications of Internet in Commerce.
			CO4	Students about applications of Internet in Commerce.
			CO5	Students understand about e-commerceand M commerce.
F.Y.BCOM	115-A	Organizational Skills Development-I	**CO1**	Conceptual Clarity on meaning of Modern Office, internal and external factors of an office environment.
			CO2	Conceptual clarity on the meaning of Scientific office management and understanding various techniques for scientific management.
			CO3	Technical skills and Critical analysis skills.
			CO4	Development of Technical and Analytical abilities.
F.Y.BCOM	115-B	Banking and finance	**CO1**	Knowledge of evolution of banking.
			CO2	Understanding structure of Indian Banking.
			CO3	Understanding primary and secondary functions of a bank.

			CO4	Understanding the concepts related to lending and ratios.
			CO5	Understanding the process of opening and operating procedure of bank accounts.
			CO6	Understanding various types of bank accounts holders
F.Y.BCOM	116A	Essentials of E-Commerce	**CO1**	Developing understanding on Ecommerce.
			CO2	Awareness on various e-commerce platforms.
			CO3	Technical, Practical, Analytical and Creative Skills.
			CO4	Technical and Practical Skills
F.Y.BCOM	116 - D	Consumer Protection and Business Ethics	**CO1**	Acquaint Knowledge and maturity to understand the consumer's interest.
			CO2	To get training to face emerging issues.To seek career opportunity in this field.
			CO3	To Acquaint knowledge and application oflaws
			CO4	To defend and safety in e commerce. Tolearn e skills.
F.Y. BCOM	116-C	Marketing & Salesmanship	**CO1**	Student will get acquainted with the basicsof marketing field.
			CO2	It will highlight on the core marketing concepts namely 'Marketing Mix'. It will help students to implement this knowledgein practicality by enhancing their skills in the field of market segmentation.
			CO3	Students will develop the skills of Pricingthe product along with gaining knowledge on Product Mix
			CO4	It will help the students to apply the various techniques of Promotion and understand the various channels of distribution
F.Y. BCOM	116-E	Business Environment	**CO1**	Understanding of various aspects business environment useful for would be

		& Entrepreneurs hip – I		entrepreneurs
			CO2	Understanding of various aspects of pollution and its ill effects and Understanding of Problems and their causes and remedies
			CO3	Understanding the concept of entrepreneur, competencies of a successful entrepreneur
SEMESTER II				
F.Y. BCOM		English- I I 121	**CO1**	Students will develop the students overall linguistic competence and communicative skills
			CO2	Student will develop written and Communication Skills to improves their prospects of employability
			CO3	Student will expose the variety of practical skills
F.Y. BCOM	122	Financial Accounting- II	**CO1**	Acquaint themselves with Computerized accounting, its application and utility.
			CO2	Understanding the accounting process of accounting of charitable trusts
			CO3	Analyzing , interpreting and communicating the information containedin basic financial statements and explain the limitations of such statements
			CO4	Learning the concept of intangible assetsand the methods of their valuation
			CO5	Understanding the process and methods of leasing.
F.Y. BCOM	123	Business Economics-II	**CO1**	Will understand the concept and types ofcost
			CO2	Students will know about short run andlong run cost concepts
			CO3	Students will have knowledge about typesof revenue and understand the concept of pure and perfect competition
			CO4	Students will know about the equilibrium of firm and industry in short and long runand will able to compare perfect and

				imperfect competition
			CO5	Will develop ability to understand the market structures under imperfect competition
			CO6	Will understand the theory of marginal productivity and the concept and theoriesin factor pricing
F.Y. BCOM	124(A)	Business Mathematics and Statistics –I I 124 (A)	**CO1**	Students will be able to apply the theory of matrices to solve business and economic problems.
			CO2	Students will be able represent business and economic optimization problems involving two variables as LPP and solvethose problems using graphical method
			CO3	Students will able to predict the type of relationship between bivariate data. Students will be able predict the value of unknown from give bivariate data.
			CO4	Students will be able compute differentindex numbers. Students will be able to compute cost of living
F.Y. BCOM	124(B)	Computer Concepts and Application-II	**CO1**	Familiar with E-commerce Tools
			CO2	Familiar with E-Marketing
			CO3	Familiar with Electronic Payment System
			CO4	Familiar with M-Commerce
F.Y.BCOM	125-A	Organizational Skills Development-II	**CO1**	Conceptual Clarity Goal Setting and Goal Measurement, Enhancing the Time Management Skills
			CO2	Enhancing Communication Skills, Usability of latest communication media
			CO3	Development Technical and analytical skills
			CO4	Development of Technical skills
F.Y.BCOM	125(B)	Banking and finance II	**CO1**	Student will develop the working capability of in banking sector
			CO2	Students aware of Banking Business and

				practices.
			CO3	Students Understand regarding the new concepts introduced in the banking system
F.Y. BCOM	126 A	Essentials of Ecommerce II	**CO1**	Conceptual understanding of ElectronicData Interchange, documentation and merits of EDI.
			CO2	Awareness about payment solutions, various payment methods and modern modes of digital payments.
			CO3	Understanding of E-commerce security, precautions while using E-commerce and methods & Process of E-Commerce security.
			CO4	Technical knowledge about virtual marketand other business to business e- commerce communication.
F.Y. BCOM	126 (D)	Business Ethics-II	**CO1**	Acquaint knowledge and maturity to understand the Business Ethics
			CO2	Application of CSR in various section
			CO3	To analyze corporate governance in India
			CO4	To understand and achieve sustainable development
F.Y.BCOM	126-C	Marketing and Salesmanship - Fundamental of Marketing-II	**CO1**	Students will get knowledge of the basics of salesmanship which is a vital aspect of marketing.
			CO2	It will help the students to implement this knowledge in practicality by enhancing their skills in the field of marketing by using various techniques of salesmanship
			CO3	It will help the students to gain insights about Rural Marketing and its uniqueness
			CO4	It will help the students to gain the insights about recent trends in marketingfield.
F.Y.BCOM	126 (E)	Business Environment & Entrepreneurs	**CO1**	Understanding the difference between entrepreneurial and nonentrepreneurial personalities and thereby getting inspiration to make students personality

		hip – II		entrepreneurial
			CO2	Understanding the significance of entrepreneurship in economy thereby getting inspiration to become entrepreneur
			CO3	Knowing the functions of related institutions
			CO4	Inspiration from study of Biographies to become entrepreneurs
SEMESTER III				
S.Y.BCOM	231	Business Communicati on	**CO1**	Understanding of basic knowledge of Business Communication
			CO2	Understanding of basic knowledge of Business Communication
			CO3	Understanding the knowledge about soft skills.
			CO4	To create awareness about soft skill amongthe students
S.Y.BCOM	232	Corporate Accounting	**CO1**	Developing understanding on applicabilityof various Accounting Standards
			CO2	Knowledge about types of profit and their apportionment
			CO3	Conceptual Clarity and Practical understanding
			CO4	Analytical skills enhancement and Decision-making skills of students will bedeveloped
S.Y.BCOM	233	Business Economics	**CO1**	Students will understand basic concepts of macro economy mics Will be able to analyze and interpret
			CO2	Will know various concepts of national income Will understand the methods of calculation of national income and difficulties involved therein.
			CO3	Will understand Says law of employmentWill understand the difference between classical and Keynesian theory Able to interpret Keynes theory of effective

				demand
			CO4	Will understand the concept of saving and investment Will know the effect of multiplier and acceleration in the economy.
S.Y. BCOM	234	Business Management	**CO1**	Students will get an idea about the basic managerial process
			CO2	Students will get an idea about how planning works in real life.
			CO3	Students will understand the process of implementation of both the concepts
			CO4	Students will understand importance of proper direction and team work.
S.Y.BCOM	235	Elements of Company Law	**CO1**	Acquaint with knowledge and maturity to understand Company law 2013
			CO2	To Acquaint knowledge and application of formation and incorporation of Company
			CO3	To understand the knowledge about the principal documents of the company.
			CO4	To inculcate skills and knowledge aboutthe share capital of the company.
S.Y.BCOM	236 A	Business Administratio n-I	**CO1**	Students will get an idea about how different forms of business organizationscan be formed and operated.
			CO2	Students will understand the impact that various factors operating in external environment can have on business
			CO3	Students will understand the impact that various factors operating in external environment can have on business
			CO4	The development strategies of businesscan be introduced.
S.Y.BCOM	236 B	Banking and Finance-I	**CO1**	Student will get the knowledge about Indian Banking System.
			CO2	Student will understand the role of banking in economic development
			CO3	Student gets the knowledge about working

				of Central Banking in India.
			CO4	To know the functioning of private and public sector banking in India.
S.Y.BCOM	136E	Cost and Works Accounting	**CO1**	To remember and understand basic concept of cost accounting. Developmentof an overall outlook of Cost Accounting
			CO2	Ability to prepare a cost sheet
			CO3	Ability to understand which proceduresare used for purchasing the material 2) Understand the documentation for purchase procedures
			CO4	Understanding methods used for controlling the inventory.
S.Y.BCOM	236 H	Marketing Management	**CO1**	Student will get acquainted with the basicsof Marketing Management subject
			CO2	It will help students to know the preferences, likes and dislikes of the consumer which lead to the further modernization of the sales strategies by marketer.
			CO3	It will help them to implements this knowledge practical situations by enhancing their skills in the field of marketing.
			CO4	To enable the students to study the effectof external environment on decision- making of the firm.
SEMESTER IV				
S.Y.BCOM	241	Business Communicati on-II	**CO1**	Understanding of basic knowledge of Report Writing and Internal Correspondence and Import-Export Correspondence.
			CO2	Learning the Recent Trends in Business Communication.
			CO3	To create ability among the students for Drafting of Business Letters.
			CO4	To create ability among the students about

				Writing Formal Mails and Blog writing
			CO5	To create ability among the students about Writing and Internal Correspondence
			CO6	Also understanding the knowledge of Recent Trends in Business Communication.
S.Y.BCOM	242	Corporate Accounting-II	**CO1**	Developing understanding on accounting procedure for Holding companies.
			CO2	Conceptual understanding, Practical application skills in the process of accounting for Absorption.
			CO3	Practical understanding on Process of Liquidation on companies
			CO4	Updating of Knowledge on recent advances in the field of Accountancy.
S.Y. BCOM	243	Business Economics-II	**CO1**	Students will understand concept and theories of money and able to critically evaluate supply of money in the economies.
			CO2	Will understand the causes and consequences of inflation
			CO3	Will understand the concept of stagflationand understand phases of trade cycle
			CO4	Will understand the types of policies and understand public revenue and public expenditure concept
			CO5	Able to interpret effect of anticyclical policies on the economy
			CO6	Will be able to analyze, interpret and criticize public policies with theoretic albase
S.Y.BCOM	244	Business Management-II	**CO1**	Students will get an idea about how leadership influences organizational success
			CO2	Students will understand the significanceof coordination and control in modern business management.

			CO3	Students will understand the significanceof coordination and control in modern business management.
			CO4	Students will come across various emerging trends in management
S.Y.BCOM	245	Elements of Company Law-II	**CO1**	To Acquaint knowledge and maturity to understand Company management
			CO2	To Acquaint with knowledge and role ofkey managerial person of the Companiesand Rules about CSR.
			CO3	To get training in to various types of meeting and procedure.
			CO4	To enhance skills and knowledge about theE-governance of the company and winding-up of the company.
			CO5	To be able to appreciate the emerging E Governance and E- filing under the Companies Act, 2013. Learn the windingup of company.
S.Y.BCOM	246 A	Business Administratio n-II	**CO1**	Students will get an idea about the legal environment of business
			CO2	Help students understand the importance of various stake holders of business and the efficient way of establishing a rapport withthem for business development Student will understand greater insight on mergers, acquisitions and other strategies
S.Y.BCOM	246 B	Banking and Finance-II	**CO1**	Understand the knowledge of Cooperative Banking in India
			CO2	Student able to analyze the functioning of Development Banking
			CO3	Student will understand Banking Sector Reforms
			CO4	Understand the role of various committeeson Banking Sector Reforms.
S.Y.BCOM	246 E	Cost and Works Accounting	**CO1**	Understanding various methods used in the pricing of the issue of materials
			CO2	Enabling to calculate wage payment and incentives.
			CO3	Understanding the process of job analysis, job evaluation and merit rating.
			CO4	Insight into recent processes used for cost

				reduction
S.Y. BCOM	246 H	Marketing Management	**CO1**	Students will understand how Green Marketing is necessary for marketers touse resources efficiently, so that organizational objectives are achieved without waste of resources.
			CO2	It will help the student to apply the various techniques and methods of E- Marketing practically.
			CO3	It will help them to implement the knowledge of Digital Marketing in practical by enhancing their skills in the field of Marketing.
			CO4	It will help them to gain a solid understanding of the theoretical and conceptual knowledge of international marketing.
SEMESTER V				
T.Y.BCOM	351	Business Regulatory Framework-I	**CO1**	Acquaint knowledge and maturity to understand Contract Law.
			CO2	To give Comprehensive insight about the emerging trend of Arbitration and conciliation and its regulatory mechanism
			CO3	Compressive understanding about the sale of Goods Act. Acquaint knowledge about ownership and delivery of goods.
			CO4	Understand the nature of partnership, Rights and duties of Partner Handling the registration and dissolution of the partnership. Aquent Knowledge about LLP
			CO1	Understand the concept of Contract and its contents. Equip the students with knowledge of nature and performance and breach of Contracts
T.Y.BCOM	352	Advanced Accounting-I	**CO1**	Developing understanding on applicability of various Accounting Standards
			CO2	Knowledge about of the Accounting for Capital Restructuring
			CO3	Conceptual Clarity and Practical understanding of preparation of final accounts of banking companies.
			CO4	Developing knowledge about Investment Accounting
T.Y.BCOM	353	Indian & Global Economic Development-	**CO1**	Students will be able to understand present Economic Scenario of Indian Economy as well as World Economy.
			CO2	Students will be able to understand the

		I		various aspects of development in Agricultural, Industrial and service sector in India.
			CO3	Student will be able to critically evaluate the role of India in international economy.
			CO4	Students will be able to evaluate the working of international financial organization and institutions.
T.Y.BCOM	353	International Economics-I	**CO1**	Students will be able to understand present Economic Scenario of Indian Economy aswell as World Economy.
			CO2	Students will understand the working of foreign trade market and foreign exchange market.
			CO3	Students will be able to comprehend trade policies and concepts related to trade policies.
			CO4	Students will be able to use the subject knowledge in their future academic and professional ventures.
T.Y.BCOM	354	Auditing	**CO1**	Acquaint with knowledge and maturity to understand concept of Auditing, types of Audit and Audit Process.
			CO2	Conceptual Clarity and Practical understanding of Vouching Verification and valuation and Types of Audit Report.
			CO3	Practical knowledge about appointment, reappointment and other related provision. Practical knowledge about Tax Audit as per I.T. Act 1961 (Form 3CA, 3CB & 3CD)
			CO4	Understanding new concepts under Audit of Computerized Systems & Forensic Audit
T.Y.BCOM	355 A	Business Administration – II (Human Resource Management) (355 (a))	**CO1**	Developing Conceptual understanding and Conceptual Clarity Learning of the Latest development in Human Resource
			CO2	Conceptual Clarity and Practical Understanding Hands on Experience Technical Knowledge
			CO3	Conceptual Clarity and Practical understanding Creative and Imaginative Skills Innovation
			CO4	Analytical skills Decision making skills Creative and Imaginative Skills
T.Y.BCOM	PR- 356 (a)	Business Administratio	**CO1**	Acquaint the student with knowledge about Corporate Finance and the structure

		n – III (Finance)		if the Indian Financial Market
			CO2	develop the Financial Planning Skills among the Students by introducing themto the process of efficient Financial Planning
			CO3	educate the students on the importance of Capitalization and the importance to maintaining an optimum capital structure
			CO4	will know about the various sources of Finance available for raising corporate capital
T.Y.BCOM	355-B	Banking and Finance II	**CO1**	Understanding the Indian Financial System. Understanding the meaning, structure and role of Financial System in India.
			CO2	Understanding the meaning, functions, credit instruments, deficiencies and recent development in Money Market in India.
			CO3	Understanding the meaning, definition functions, credit instruments, deficienciesand recent development in Capital Market in India
			CO4	Understanding the meaning, definition functions, participants and recent development in Foreign Exchange Market.
T.Y.BCOM	356-B	Banking and Finance	**CO1**	Understanding the Banking Regulation Act1949 with Objectives and selective Provisions. Understanding the Provisions of Negotiable Instruments Act, 1881
			CO2	Understanding the Objectives, Importance, Selective Definitions and Provisions Insolvency and Bankruptcy
			CO3	Understanding the details Banking Ombudsman Scheme, 2006
T.Y.BCOM	355 – e	Cost and Works Accounting	**CO1**	To remember and understand the conceptof overhead and classification of overheads
			CO2	Understanding the significance of overheads in the total cost of product/service.
			CO3	Ability to understand the stages in the process of accounting overheads.
			CO4	Application of accounting treatment for under and over absorption.
			CO5	Knowledge about detection of overheadsto different activities

T.Y.BCOM	356-E	Works Accounting III	**CO1**	Development of overall outlook of Marginal Costing.
			CO2	Develop the knowledge about preparation of various types Budgets
			CO3	Understand the implementation n of Interfere comparison
			CO4	Understand the implementation n of modern costing environment
T.Y.BCOM	355 (h)	Marketing Management-II	**CO1**	To equipped with a comprehensive understanding of the key factors in demand and sales forecast.
			CO2	Familiarizing the students with the application of the concept & need of marketing in Non-profit organization.
			CO3	Understanding marketing organization and its changing role
			CO4	Understanding the concept and importance of Building Brand Strategy, as well as its relationship in reviewing to competitive advantage
T.Y.BCOM	356(H)	Marketing Management-III	**CO1**	Student will understand the concept of advertising and advertising media
			CO2	To enable them to analyze and interpret
			CO3	To enable the students to study the Appeals and Approaches in Advertisement
			CO4	It will help the students to apply the various Economic and social aspects of advertising.

			CO5	It will help them to implement thisknowledge in practical situations by enhancing their skills in the field of Marketing

Name of the Programme: M.Com.

Name of the Class	Course Code	Course Title		Course Outcomes
SEMESTER I				
M.COM-I	101	Management Accounting	**CO1**	Student will understand the concept of Marginal Costing, its applications, different techniques, of managerial cost accounting and Fixed and Variable Cost Analysis in decision making process.
			CO2	Understand the concept of budget and budgetary control, types of budgets and preparation of functional budgets in an organization.
			CO3	Understand the concept of Working Capital Management, determination of working capital, components of working capital and accounts receivable and inventory management.
			CO4	Student will understand the concept of Financial Accounting and its limitations, emergence of Management Accounting and Cost Accounting, its advantages and distinction between Management Accounting and Cost Accounting
M.COM-I	102	Strategic Management	**CO1**	Conceptual Clarity on Strategic management
			CO2	Development effective Strategy formulation and analytical ability and Skills to design Strategic Plan
			CO3	Development of Applicability skills and Technical skills
			CO4	Development of Technical and Analytical abilities
M.COM-I	103	Advanced	**CO1**	Getting familiar with the Advanced Concepts

		Accounting Group A	**CO2**	Understanding the Consolidation of Financial Statements of Holding Companies & two Subsidiary Companies
			CO3	Prepare Statement of Affairs of the Companies in Liquidation
			CO4	In the today's competitive Corporate World to understand the needs and methods of valuation of Goodwill & Shares
M.COM-I	104	Income Tax Group A	**CO1**	Understand provide the basic knowledge of Income Tax Act. 1961
			CO2	Understand the concepts of Heads of Income and to compute the income under each head.
			CO3	Understand the concept of deductions and provisions of Sec. 80C to 80U
			CO4	Compute the taxable income of an Individual , Hindu Undivided Family and Companies.
M.COM-I	107	Advanced Cost Accounting Group -C	**CO1**	Development of overall outlook of Cost Accounting
			CO2	Understanding the related weightage of employee cost in the total cost of product/service
			CO3	Understand the significance of overheads in the total cost of product/service
			CO4	Understand formats of cost sheets as per Industry Specifications
M.COM-I	108	Costing Technique Examination s and Responsibility Accounting Group-C	**CO1**	Understand Budget Preparation Process
			CO2	Understand the impact of adverse and favourable variances on cost of a product/service
			CO3	Understand the industry specific cost ratios.
			CO4	To understand the importance of various tools to evaluate the business centers.
M.COM-I	113	Production and Operation Management Group F	**CO1**	Awareness on Career opportunities in Supply Chain, Management Introduction to Alternative Career opportunities
			CO2	Development of Innovative abilities and Application oriented skill
			CO3	Awareness on the recent and emerging areas Change in overall

				perception towards quality enhancement
M.COM-I	114	Financial Management Group-F	**CO1**	Developing understanding on Financial Management
			CO2	Developing Financial Statement analysis skills
			CO3	Developing Decision making Skills
			CO4	Developing skills for effective Credit and Working Capital Management
SEMESTER II				
M.COM-I	201	Financial Analysis and Control	**CO1**	Application of IT for financial analysis
			CO2	Understanding basics of financial analysis
			CO3	To gain knowledge of practically comparing financial results of different years and different
			CO4	Understand the importance of cash liquidity in an organization. To understand the computation of cash and fund flows under operating, investing and financing categories. companies. Develop the skill of appropriate use of different ratios to evaluate the financial performance of entities
M.COM-I	202	Industrial Economics	**CO1**	Will get an overview of industrial economics
			CO2	Will know about the concepts used in industrial economic
			CO3	Students will understand the theories of industrial location
			CO4	Students will know about industrial imbalance in India
			CO5	Students will know about industrial productivity and efficiency
			CO6	Students will know about industrial productivity, size of firms etc.
			CO7	Students will know about industrial finance and its sources
			CO8	Students will understand problems of small and micro industries in India
M.COM-I	203	Specialized Areas	**CO1**	Describe how contract accounting is used for performance

		in Accounting Group A		evaluation and decision making Recalls the distinction between Amalgamation in the nature of of purchase and analyses the situation where the Alteration of share capital and internal reconstruction is required
			CO2	To develop competency of students to solve problems relating Special areas in accounting including accounting for Services Sector
			CO3	To Maintain different types of ledgers, prepare documents such as Invoice, Credit Note and Debit Note, identify the different types of returns and their applicability to the business, Monthly Returns, Quarterly Return
M.COM-I	204	Business Tax Assessment & Planning Group A	**CO1**	Understand the provision for computation of income of various entities.
			CO2	Understand the provisions of returns, assessment and procedure of assessment
			CO3	Understand need and importance of Tax Planning and Management
			CO4	Understand the Basic concept and framework under GST Act & Customs Act.
M.COM-I	207	Application Cost Accounting Group -C	**CO1**	Learners must be able to reconcile the cost and financial data
			CO2	Understand the concepts of PLC and VCA
			CO3	Understand the Cost Distortions in Traditional Costing and compare it with ABC.
M.COM-I	208	Cost Control & Cost System Group -C	**CO1**	Students must understand the role of Marginal Costing in short term decision making.
			CO2	Understand the relevance of pricing
			CO3	Students will be able understand process of installation of costing system.
			CO4	Develop insight into Cost Reduction and Cost Control technique & to understand measurement of productivity

M.COM-I	213	Business Ethics and Professional Values Group-F	**CO1**	Understand How companies ethically operate
			CO2	Understand how CSR activities help the society for better living
			CO3	Understand how ethical practices can be adopted in different areas of business
			CO4	Awareness on the importance of environmental issues and Sustainable Development
M.COM-I	214	Elements of Knowledge Management Group -F	**CO1**	Developing Conceptual Skill and Improving analytical Ability .
			CO2	Developing Technical and Practical Oriented Skills
			CO3	Understands Value based and Application Oriented Skills
			CO4	Understands Administrative and Management skills
SEMESTER III				
M.COM-II	301	Business Finance	**CO1**	Students will be able to understand the role and importance of corporate finance, and learn the calculation value of money.
			CO2	Students will be able to understand the financial planning, theories of capitalization and estimation of finance need of firm.
			CO3	Students will be able to learn the sources of finance to be tapped for running business successfully.
			CO4	Students will be able to apply best practice in working capital management.
M.COM-II	302	Research Methodology For Business	**CO1**	Students will be able to understand the role and importance of corporate finance, and learn the calculation value of money.
			CO2	Students will be able to understand the financial planning, theories of capitalization and estimation of finance need of firm.
			CO3	Students will be able to learn the sources of finance to be tapped for running business successfully.
			CO4	Students will be able to apply best practice in working capital management.
M.COM-II	303	Advanced Auditing Group-A	**CO1**	To develop the knowledge about auditing standard.
			CO2	To know about the practice of Company Auditor
			CO3	Develop knowledge about Corporate Governance and audit

				committee
			CO4	Use of computer in audit
M.COM-II	304	Specialized Auditing Group-A	**CO1**	Student must able to understand new concept of auditing
			CO2	Student must able to understand process of internal audit
			CO3	Student must able to understand auditing in banks
			CO4	Students should know the application of auditing in cooperative sector in country like India
M.COM-II	307	Cost Audit Group-C	**CO1**	Understand importance of cost audit
			CO2	Understand the role and responsibility of cost auditor
			CO3	Able to prepare plan for cost audit Able to understand how to draft Cost Audit Report.
M.COM-II	308	Management Audit Group-C	**CO1**	Understanding importance of management Audit
			CO2	Understanding The Procedure Of Management Audit
			CO3	Understanding Corporate Image In Management Audit
			CO4	Able To Understand Different Areas Of Management Audit
			CO5	Help To Understand Operational Audit.
M.COM-II	313	Human Resource Management Group-F	**CO1**	The student will be able to understand The Definition and meaning of Human Resource Management, its Concept, Approaches, Functions ▪ Can identify that the HRM is profession or not. ▪ Able to cope with the concept Human Resource Environment. ▪ Place of female employee in the organization. ▪ Identify the changing Role of Human Resource Management.
			CO2	The Objectives of Human Resource Planning and Development. ▪ Need and Estimation for Human Resource Planning and Development. ▪ Can understand the recruitment and selection process. ▪ Understand the concept of Retention of Manpower, Succession Planning
			CO3	Kinds of Retirement, Resignation, Discharge, Dismissal, Suspension, Lay off. ▪ Identify he recent trends in HRM
M.COM-II	314	Organizational Behaviour	**CO1**	The Definition and meaning of organizational Behaviour Able to cope with the role of technology in organization. Describe the

				theoretical and conceptual framework of Organizational Behavior ▪ Analyze the impact of globalization
			CO2	To be understand the Concept and characteristics of Emotional Intelligence
			CO3	To be well acquainted with Emotional intelligence in the Workplace
			CO4	To understand the meaning and Causes of Stress ▪ Get detail knowledge about the Conflict ▪ To be understand Concept and Types of Group and Team building
SEMESTER IV				
M.COM-II	401	Financial Services 401	**CO1**	Students will be able to learn the importance and working of capital market.
			CO2	Student will be able to understand the working of BSE and NSE, and OTCEI in detail.
			CO3	Students will be able to know the role of inter-mediatories, Mutual funds. Portfolio management.
			CO4	Students will be able to know the role of SEBI in regulating stock exchanges and investors' education, financial advisors.
M.COM-II	402	Industrial Economic Environment	**CO1**	Will understand the impact of economic and non – economic factors affecting industrial environment
			CO2	Will understand role of various types of industries in India like small scale industries, public sector industries, MNCs etc.
			CO3	Critically evaluate industrial polices in India
			CO4	Analyze the impact of new industrial policy adopted by India
			CO1	Will understand role, progress and problems of manufacturing and service industries in India
M.COM-II	403	Recent Advances in Accounting, Taxation & Auditing Group-A	**CO1**	Students will know the professionalism in Accounting process
			CO2	Students will understand the benefit of new reforms among different stakeholders.
			CO3	Students will understand the application of new accounting methods for better efficacy building
			CO4	Students will understand the need for emerging trends in

				accountancy
M.COM-II	407	: Recent Advances in Cost Auditing and CostSystem	**CO1**	Understand Cost Accounting Standards in depth Audit
			CO2	Understand GST and Productive Audit
			CO3	Understanding ERP
			CO4	Able to understand different areas of recent changes
M.COM-II	413	Recent Advances in Business Administration	**CO1**	Can identify dimensions Approaches towards managing change. Able to cope with the futuristic and Strategic approaches due technology.
			CO2	Able to know the challenges before customer centric organization ▪ Identify the best practices and way to measure the success of customer centric company.
			CO3	Able to Know the cross cultural Management issues. ▪ Able to identify to aquatint the role, importance and current trends in merger
			CO4	Identify the prerequisite for success. ▪ Able to identify the concept and significance of Restructuring and Reengineering of Business. ▪ Able to cope with the steps of innovation management. And also the role of various institution for promoting.

Name of the Programme: B.B.A.

Name of the Class	Course Code	Course Title	Course Outcome	
SEMESTER I				
F.Y.B.B.A.	101	Business Organisation & System	**CO1**	Students shall be able to explain why information systems are so important today for business and management.
			CO2	Students shall have the knowledge of the different forms of Business systems
			CO3	Students shall develop the spirit of entrepreneurship among the students.
			CO4	Students shall have the knowledge of Domestic and Foreign Trade.
	102	Business Communication Skills	**CO1**	Students shall improvise their skills such as linguistic, non-linguistic and Paralinguistic skills.
			CO2	Students shall develop integrative approach where reading, writing, oral and speaking components are used together to enhance the students' ability to communicate and write effectively.
			CO3	Students shall be aware about various Methods and Media of communication.
	103	Business Accounting	**CO1**	The students have acquired sound knowledge of basic concepts of accounting.
			CO2	Students also understood about recording of transactions and preparation of final accounts.
			CO3	Students got exposure about various accounting software packages.

	104	Business Economics (Micro)	**CO1**	Students shall understand how households (demand) and businesses (supply) interact in various market structures to determine price and quantity of a good produced.
			CO2	Students shall understand the links between household behavior and the economic models of demand
			CO3	Students shall represent demand, in graphical form, including the downward slope of the demand curve and what shifts the demand curve.
			CO4	Students shall understand the links between production costs and the economic models of supply.
			CO5	Students shall represent supply, in graphical form, including the upward slope of the supply curve and what shifts the supply curve.
			CO6	Students shall understand how different degrees of competition in a market affect pricing and output.
	105	Business Mathematics	**CO1**	Students shall understand applications of matrices in business.
			CO2	Students shall understand the concept and application of Permutations& Combinations in business.
			CO3	Students shall use L.P.P. and its applications in business.
			CO4	Students shall understand the concept of Transportation problems & its applications in business world.
			CO5	Students shall understand the concept of shares & share market.
	106	Business Demography and Environmental Studies	**CO1**	Students shall understand Distribution of Population and Population Growth.
			CO2	Students shall be aware regarding Environment and Environmental issues related to Business

			CO3	Students shall understand the problems of urbanization
SEMESTER II				
F.Y.B.B.A.	201	Principles of Management	**CO1**	Students shall demonstrate an understanding of effective management principles as outlined in selected text learning objectives.
			CO2	Students shall apply effective management strategies, principles and techniques.
			CO3	Students shall demonstrate research and analytical skills by using both human and technological resources
			CO4	Students shall demonstrate the ability to communicate effectively.
	202	Principles of Marketing	**CO1**	Students shall get familiar to basic concepts of marketing, it's general nature, scope and importance.
			CO2	Students shall receive appropriate knowledge and understanding of its primary functions and applications and its gradual evolution and development.
			CO3	Students shall develop basic and essential skills related to marketing.
			CO4	Students shall get a learning platform for preparing for marketing employability opportunities essential for industries.
	203	Principles of Finance	**CO1**	Students understood the nature, importance, structure of finance related areas.
			CO2	Knowledge regarding sources of finance for a business.
	204	Basics of Cost Accounting	**CO1**	Students got the Knowledge of Basic cost concepts, element of cost & preparation of Cost Sheet.
			CO2	Basic knowledge of important Methods of costing was given to the students.

	205	Business Statistics	**CO1**	Students shall be able to understand the basics of statistics – concept of population and sample & to use frequency distribution to make decision.
			CO2	Students shall be able to understand and calculate various types of averages and variation.
			CO3	Students shall be able to understand Correlation and use of regression analysis to estimate the relationship between two variables and its applications.
			CO4	Students shall be able to understand the concept – Time Series and its applications in business.
			CO5	Students shall be able to understand the concept – Index numbers and applications in business.
			CO6	Students shall be able to imbibe research culture among students.
	206	Business Informatics	**CO1**	Students shall know the basics of Computer
			CO2	Student shall understand the basics of networking
			CO3	Student shall the basics of internet.
			CO4	Student shall the basics of databases.
SEMESTER III				
S.Y.B.B.A.	301	Personality Development	**CO1**	Students shall be aware about the dimensions and importance of effective personality
			CO2	Students shall understand personality traits and formation and vital contribution in the world of business
			CO3	Students shall get aware about various dynamics of personality development

	302	Business Ethics	**CO1**	Students shall get knowledge of Business Ethics
			CO2	Students shall witness promotions of Ethical Practices in the Business
			CO3	Students shall develop Ethical and Value Based thought process among the future manager's entrepreneurs
S.Y.B.B.A.	303	Human Resource Management and Organisation Behaviour	**CO1**	Students studying HRM /OB acquire the knowledge, critical thinking, and practical skills that will enable them to create organizational effectiveness, lead human resources management strategies, and enhance the human condition at work.
			CO2	HRM/OB students learn to think critically about the challenges involved in creating high performance workplaces where innovation, diversity, and ethical behaviour are valued and rewarded.
			CO3	HRM/OB Majors are educated in Human Resources Management (HRM), Organizational Behaviour (OB) and Industrial Relations (IR).
S.Y.B.B.A.	304	Management Accounting	**CO1**	Students got the basic knowledge of Management Accounting.
			CO2	To know the implications of various financial ratios in decision making.
			CO3	Significance of working capital in business.
			CO4	Students got the concept of budgetary control and its application in business.
			CO5	Students got the calculating ability of various techniques of management accounting.
S.Y.B.B.A.	305	Business Economics	**CO1**	Students shall study the behavior of working of the economy asa whole.

		(Macro)	**CO2**	Students shall develop an analytical framework to understand the inter-linkages among the crucial macroeconomic variables.
			CO3	Students shall apply economic reasoning to problems of business and public policy.
S.Y.B.B.A.	306	I.T. in Management	**CO1**	The study describes the role of information systems in business.
			CO2	It studies the current issues of information technology and relate those issues to the firm.
SEMESTER IV				
S.Y.B.B.A.	401	Production and Operations Management	**CO1**	Students shall identify and articulate how operations management contributes to the achievement of an organization's strategic objectives.
			CO2	Students shall critically evaluate the operations function in manufacturing and service production settings.
			CO3	Students shall appraise and apply forecasting methods as the basis of management's planning and control activity.
			CO4	Students shall assess and formulate decision making strategies to address operating issues that have short, intermediate or long lead times.
			CO5	Students shall evaluate approaches to problem solving and process improvement in production settings.
	402	Industrial Relations & Labour Laws	**CO1**	Students understood the relationship between Labour and Management.
			CO2	Resolving of Industrial disputes and Grievances
			CO3	Students understood the laws which effects the industry andLabour
	403	Business Taxation	**CO1**	Students got to understand the basic concepts and definitionsunder the Income Tax Act, 1961.

			CO2	Students were given latest development in the subject of taxation.
			CO3	Acquired knowledge about Computation of Income under different heads of Income of Income Tax Act, 1961.
			CO4	Acquired knowledge about the submission of Income Tax Return, Advance Tax, Tax deducted at Source, Tax Collection Authorities.
			CO5	Students became Competent enough to take up to employment in Tax planner.
			CO6	To develop ability to calculate taxable income of firms, co-operative societies and charitable trust.
S.Y.B.B.A.	404	International Business	**CO1**	Students shall get acquainted with emerging issues in international business
			CO2	Students shall study the impact of international business environment on foreign market operations
			CO3	Students shall understand the importance of foreign trade for Indian economy.
S.Y.B.B.A.	405	Management Information System	**CO1**	Students became Competent enough to understand the concepts of Information System
			CO2	Understood the concepts of system analysis and design
			CO3	Students understood the issues in MIS.
S.Y.B.B.A.	406	Business Exposure (Field Visits)	**CO1**	Students shall develop their understanding with a realistic and practical perception of the industry its layout, procedures, processes, organization structure.
			CO2	Students shall gain firsthand information regarding the functioning of the Industry which presents the students with opportunities to plan, organize and engage in active learning experiences both inside and outside the classroom.
SEMESTER V				

T.Y.B.B.A.	501	Supply Chain and Logistics Management	**CO1**	Upon successful completion of program students able to 1. Describe major logistics functions and activities.
			CO2	Differentiate logistics and supply chain management.
			CO3	Describe methods of inventory planning.
			CO4	Explain how technology has and continues to change logistics and supply chain management
			CO5	Compare modes of transportation.
			CO6	Describe warehouse processes, systems, and performance measures.
			CO7	Describe documentation and terms of sale for international shipments.
	502	Entrepreneurship Development	**CO1**	Graduate Entrepreneurship Students will be able to … Demonstrate a fundamental comprehension of business opportunity evaluation, from the perspective of a prospective investor.
			CO2	Identify the most recognized sources of potential funding and financing for business start-ups and/or expansion.
			CO3	Demonstrate extemporaneous speaking skills developed through in-class discussion of text materials, case study analyses, and current entrepreneurship-related issues.
			CO4	Assess their own personal work products creativity and how those could apply to their own real life, future business ventures.
	503	Business Law	**CO1**	Students understood basic legal terms and concepts used in law pertaining to business
			CO2	Applicability of legal principles to situations in Business world.
	504	Research Methodology (Tools and Analysis)	**CO1**	Students shall gain basic understanding of research process and tools for the same.
			CO2	Students shall gain understanding of the tools and techniques necessary for research and report writing.

	505A	Analysis of Financial Statements	**CO1**	Students learnt the interpretation and analysis of financial statements effectively.
			CO2	The student got well acquainted with current financial practices
			CO3	Students became intensive users of financial statements as part of their professional responsibilities.
	505B	Sales Management	**CO1**	Students shall demonstrate an understanding of the role that a sales force plays in marketing strategies
			CO2	Students shall describe the selling process.
			CO3	Students shall Understand the factors that affect sales forcesuccess.
			CO4	Students shall identify and explain the processes involved in recruiting, selecting, training, motivating, compensating, and retaining salespeople.
	505C	HRM Principles & Functions	**CO1**	Students shall understand HR Recruitment and Selection.
			CO2	Students shall get aware about Training, development and evaluation system in HR
			CO3	Students shall understand how to prepare Personnel recordsreports and audit.
			CO4	Students shall study in detail New trends in HRM and exit policy
	506A	Long Term Finance	**CO1**	Students got the capability to make long-term financing.
			CO2	Students were well-acquainted regarding current financial structure.
	506B	Retail Management	**CO1**	Compare and contrast traditional retailers and category specialists Describe how technology (e.g., customer databases, integrated systems, and buying and sales forecasting systems) is used to support retail businesses
			CO2	Evaluate the effectiveness of merchandising decisions in the retail industry Explain the factors relating to visual merchandising, such as store layouts and presentation Compare

				the strategies that are used within the different stages of a product's life cycle
			CO3	Students shall describe the flow of goods and services in a retail environment.
	506C	Human Resource Practices	**CO1**	Students shall get introduced to Strategic HRM
			CO2	Students shall understand Working Conditions & Welfare
			CO3	Students shall understand Employee Grievance & Discipline
			CO4	Students shall get aware of E- Human Resource studies
SEMESTER VI				
T.Y.B.B.A.	601	Business Planning and Project Management	**CO1**	Students shall learn to manage the scope, cost, timing, and quality of the project, at all times focused on project
			CO2	Students shall align the project to the organization's strategic plans and business justification throughout its lifecycle
			CO3	Students shall identify project goals, constraints, deliverables, performance criteria, control needs.
			CO4	Students shall implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success
	602	Event Management	**CO1**	Students shall get acquainted with concepts, issues and various aspects of event management.
	603	Management Control System	**CO1**	Students understood the function of management control, its nature, functional areas, and techniques.
	604	E-Commerce	**CO1**	Students shall understand the basic concepts and technologies used in the field of management information systems.
			CO2	Students shall be aware of the ethical, social, and security issues of information systems.
			CO3	Students shall assess the impact of the Internet and Internet technology on business electronic commerce and electronic business.
			CO4	Students shall identify the major management challenges to building and using information systems and learn how to find appropriate solutions to those challenges.

	605A	Financial Services	**CO1**	Students got aware of various financial services and financial markets in India.
	605B	Advertising and Sales Promotion	**CO1**	Students shall develop knowledge and understanding of importance and functions of advertising
			CO2	Students shall understand Key features of Sales Promotion
	605C	Labour Laws	**CO1**	Students shall get an introduction to Labour Laws in India
			CO2	Students shall understand the Acts Such as - The Employees Provident Funds and Miscellaneous Provisions Act,1952; The Child Labour (Prohibition and Regulation) Act,1986; Maternity Benefits Act,1961 and The Employees State Insurance Act,1948.
	606A	Cases in Finance	**CO1**	The students understand and prepare a project report on Various topics of finance.
	606B	Cases in Marketing	**CO1**	Students shall get hands on application of theory by practicing via projects and cases.
	606C	Cases in HRM	**CO1**	Students shall understand the actual application of theoretical aspects and laws by the means of live projects.

Name of the Programme: BBA-CA

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
F.Y.B.B.A (C.A.)	101	Modern Operating Environment and MS Office	**CO1**	The student will be able to recognize when to use each of the Microsoft Office programs to create professional business documents.
			CO2	The student will be able to use Microsoft Office programs to create personal and/or business documents following current professional and/or industry standards
			CO3	The student will be able to pursue future courses specializing in one or more of the programs.
			CO4	The student will be able to apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace and in future coursework as identified by the internationally accepted Internet and Computing Core (IC3) standards.
F.Y.B.B.A (C.A.)	101 New	Business Communication Skills	**CO1**	The student will be able to understand the role of communication in personal and business world.
			CO2	The student will be able to understand system and communication and their utility
			CO3	The student will be able to develop proficiency in how to write business letters.
F.Y.B.B.A (C.A.)	102	Financial Accounting	**CO1**	The students have acquired sound knowledge of basic concepts of accounting
			CO2	Students also understood about recording of transactions and preparation of final accounts
			CO3	Students got exposure about various accounting software packages.
F.Y.B.B.A (C.A.)	102 New	Principles of Management	**CO1**	The student will be able to understand basic concept regarding org. Business Administration.
			CO2	The student will be able to examining various management principles.
			CO3	The student will be able to develop managerial skills among the students.
F.Y.B.B.A	103	Principles of	**CO1**	The student will be able to apply knowledge

(C.A.)		Programming and Algorithm		of mathematics, science, and engineering
			CO2	The student will be able to learn how to solve common types of computing problems.
			CO3	The student will be able to design and conduct experiments, as well as to analyze and interpret data.
			CO4	The student will be able to design a system, component, or process to meet desired needs within realistic constraints.
			CO5	The student will be able to function on multidisciplinary teams.
F.Y.B.B.A (C.A.)	104	Business Communication	**CO1**	Students shall understand the concept, process and importance of communication
			CO2	Students shall develop an integrative approach where reading, writing, presentation skills are used together to enhance the students' ability to communicate and write effectively
			CO3	Students shall be awareness among students about Methods and Media of communication
			CO4	Students shall get familiar with information technology and improve job seeking skills.
F.Y.B.B.A (C.A.)	105	Principles of Management	**CO1**	The student will be able to understand basic concept regarding org. Business Administration.
			CO2	The student will be able to examining various management principles.
			CO3	The student will be able to develop managerial skills among the students.
F.Y.B.B.A (C.A.)	105 New	Business Statistics	**CO1**	Students will be able to understand role and importance of statistics in various business situations
			CO2	Students will be able to develop skills related with basic statistical technique
			CO3	Students will be able to develop right understanding regarding regression, correlation and data interpretation
F.Y.B.B.A (C.A.)	106	Laboratory Course (Ms. Office, Tally, PPA)	**CO1**	Students will be gain useful knowledge and demonstrate correct application of features of Ms. Office.
			CO2	Students will be able to easily create and edit workbooks having multiple sheets for different purposes and situations.
			CO3	Tally gives the platform to report the

				financial transaction with excessive ease.
			CO4	An ability to design a system, component, or process to meet desired needs within realistic constraints.
SEMESTER II				
F.Y.B.B.A (C.A.)	201	Procedure Oriented Programming using "C"	**CO1**	The student will be able to understand the working of a digital computer.
			CO2	The student will able to analyze a given problem and develop an algorithm to solve the problem
			CO3	The student will able to improve upon a solution to a problem.
			CO4	The student will able to use the 'C' language constructs in the right way.
			CO5	The student will able to design, develop and test programs written in 'C'
F.Y.B.B.A (C.A.)	201 New	Organizational Behavior & Human Resource Management	**CO1**	The student will able to understand basic concept of HRM & OB
			CO2	The student will able to make aware students about traditional & modern methods of procurement & development in organization.
			CO3	The student will able to know the major trends in HRM & OB
F.Y.B.B.A (C.A.)	202	Database Management Systems	**CO1**	The student will able to learn the basic concepts and understand the applications of database systems.
			CO2	The student will able to construct an Entity-Relationship (E-R) model from specifications and to transform to relational model.
			CO3	The student will able to construct unary/binary/set/aggregate queries in Relational Algebra.
			CO4	The student will able to understand and apply database normalization principles.
F.Y.B.B.A (C.A.)	202 New	Financial Accounting	**CO1**	The student will able to develop right understanding regarding role and importance of monetary and financial transactions in business.
			CO2	The student will able to cultivate right approach towards classifications of different transactions and their implications.
			CO3	The student will able to develop proficiency preparation of basic financial as to how to write basis accounting statement - Trading and P&L.
F.Y.B.B.A (C.A.)	203	Organizational Behavior	**CO1**	The students will able to define, explain and illustrate a range of organisational behaviour

				theories.
			CO2	The students will able to analyse the behaviour of individuals and groups in organisations in terms of organisational behaviour theories, models and concepts.
			CO3	The students will able to apply organisational behaviour concepts, models and theories to real life management situations.
			CO4	The students will able to demonstrate a critical understanding of organisational behaviour theories.
			CO5	The students will able to communicate effectively about organisational behaviour theories and their application using appropriate concepts.
			CO6	The students will able to explain group dynamics and demonstrate skills required for working in groups (team building)
F.Y.B.B.A (C.A.)	203 New	Business Mathematics	**CO1**	The students will able to understand role and importance of Mathematics in various business situations and while developing softwares.
			CO2	The students will able to develop skills related with basic mathematical technique
F.Y.B.B.A (C.A.)	204	Computer Applications In Statistics	**CO1**	Students shall understand the power of excel spreadsheet in computing summarystatistics.
			CO2	Students shall understand the concept of various measures of central tendency and variation and their importance in business
			CO3	Students shall understand the concept of probability, probability distributions and simulations in business world and decision making.
F.Y.B.B.A (C.A.)	204 New	Relational Data Base	**CO1**	The students will able to understand relational database concepts and transaction management concepts in database system.
			CO2	The students will able to write PL/SQL programs that use: procedure, function, package, cursor and trigger.

F.Y.B.B.A (C.A.)	205	E-Commerce Concepts	**CO1**	The students will able to Describe an example of system architecture for an e-Business.
			CO2	The students will able to identify the major electronic payment issues and options.
			CO3	The students will able to discuss security issues and explain procedures used to protect against security threats.
F.Y.B.B.A (C.A.)	205 New	Web Technology (HTML-JSS-CSS)	**CO1**	The students will able to know & understand concepts of internet programming.
			CO2	The students will able to understand how to develop web based applications using JavaScript.
F.Y.B.B.A (C.A.)	206	Laboratory Course (C- Programming, DBMS and Stat)	**CO1**	Students will be able to Design, develop and test programs written in 'C'
			CO2	Students will be able to easily design and create a good database and use various SQL operations.
			CO3	Students shall understand the power of excel spreadsheet in computing summarystatistics.
SEMESTER III				
S.Y.B.B.A (C.A.)	301	Relational Database Management System	**CO1**	The students will be able to understand basic concepts and the applications of database systems
			CO2	The students will able to Understand and apply database normalization principles.
			CO3	The students will be able to understand principles of database transaction management, database recovery, security.
			CO4	The students will be able to understand Functions, Cursors, Triggers and packages.
			CO5	The student will get brief knowledge about SQL Fundamentals.
			CO6	The students will be able to understand Functions, Cursors, Triggers and packages.
			CO7	The students will be able to handle with different Data Base languages
S.Y.B.B.A (C.A.)	301 New	Digital Marketing	**CO1**	The students will be able to give knowledge about using digital marketing in business.
			CO2	The students will be able to make SWOT analysis, SEO optimization and use of various digital marketing tools.
S.Y.B.B.A (C.A.)	302	Data Structure Using C	**CO1**	Students will be able to apply concepts of data structure in various domains like DBMS, etc.
			CO2	Students will be able to handle various operations like creation, insertion, deletion,

				searching, etc. on various data structure.
			CO3	Students will be able to use various data structures like stack, queue, linked list, etc in practically.
			CO4	Students will be able to apply appropriate data structure to specified problem definition.
S.Y.B.B.A (C.A.)	302 New	Data Structure	**CO1**	Students will be able to understand the concepts of ADTs.
			CO2	Students will be able to learn linear data structures – lists, stacks, and queues.
			CO3	Students will be able to understand sorting, searching and hashing algorithms.
			CO4	Students will be able to apply Tree andGraph structures.
S.Y.B.B.A (C.A.)	303	Introduction to Operating System	**CO1**	Students will be able to understand the concepts of operating system and its working.
			CO2	Students will be able to understand various operating systems features
			CO3	Students will be able to understand basic architectural components involved in operating system design
			CO4	Students will be able to understand device and resource management techniques for timesharing and distributed system
			CO5	Students will be able to understand the concept of mutual exclusion, deadlock detection of distributed operating system
S.Y.B.B.A (C.A.)	303 New	Software Engineering	**CO1**	Students will be able to understand System concepts.
			CO2	Students will be able to understand Software Engineering concepts.
			CO3	Students will be able to understand the applications of Software Engineering concepts and Design in Software
S.Y.B.B.A (C.A.)	304	BUSINESS MATHEMATICS	**CO1**	Students shall understand applications of matrices in business
			CO2	Students shall use L.P.P. and its applications in business
			CO3	Students shall understand the concept of Transportation problems & its applications in business world
			CO4	Students shall understand the concept of Profits and loss, loans and EMIs
S.Y.B.B.A (C.A.)	304 New (Option)	Angular - JS	**CO1**	The students will be able to understand Client Side MVC and SPA.
			CO2	The students will be able to explore

				AngularJS Component.
			CO3	The students will be able to develop an AngularJS Single Page Application.
			CO4	The students will be able to create and bind controllers with Javascript.
			CO5	The students will be able to apply filter in AngularJS application.
S.Y.B.B.A (C.A.)	304 New (Option)	PHP	**CO1**	The students will be able to understand how server-side programming works on the web.
			CO2	The students will be able to use PHP built-in functions and creating custom functions.
			CO3	The students will be able to understand POST and GET in form submission.
			CO4	The students will be able to understand howto receive and process form submission data.
			CO5	The students will be able to read and process data in a MySQL database.
S.Y.B.B.A (C.A.)	305	Software Engineering	**CO1**	The students will be able to use the techniques, skills, and modern engineering tools necessary for engineering practice.
			CO2	The students will be able to analyze, design, verifies, validate, implement, apply, and maintain software systems.
			CO3	The students will be able to design and conduct experiments, as well as to analyze and interpret data.
			CO4	The students will be able to identify, formulates, and solves engineering problems.
S.Y.B.B.A (C.A.)	305 New (Option)	Big Data	**CO1**	The students will be able to develop expert knowledge and analytical skills in currentand developing areas of analysis statistics, and machine learning
			CO2	The students will be able to identify, develop and apply detailed analytical, creative, problem solving skills.
			CO3	The students will be able to understand comprehensive platform for career development, innovation and further study.

S.Y.B.B.A (C.A.)	305 New (Option)	Block Chain	**CO1**	The students will be able to understand how blockchain systems (mainly Bitcoin and Ethereum) work.
			CO2	The students will be able to securely interact with them.
			CO3	The students will be able to design, build, and deploy smart contracts and distributed applications.
			CO4	The students will be able to integrate ideas from blockchain technology into their own projects
S.Y.B.B.A (C.A.)	306	Computer Laboratory and Practical Work (D.S + RDBMS)	**CO1**	Student will be able to solve the practical problem using Data Structure using C and Relational Database Management System
			CO2	Students will be able to implement and summarize concepts of searching and sorting techniques.
			CO3	Students will be able to write well-structured program using procedure oriented design principles.
			CO4	Students will be able to analyze run-time execution of application.
			CO5	Students will be able to implement the Stack ADT using array and linked list data structures.
S.Y.B.B.A (C.A.)	AECC Add-On Course	Basic Course in Environmental Awareness	**CO1**	Students will be able to provide an opportunities to acquire the knowledge,values, attitudes, commitment, and skills needed to protect and improve the environment.
			CO2	Students will be able to develop conscious towards a cleaner and better managed environment.
SEMESTER IV				
S.Y.B.B.A (C.A.)	401	Object Oriented Programming Using C++	**CO1**	Students will be able to understand features of object oriented programming.
			CO2	Students will be able to produce object-oriented software using C++
			CO3	Students will be able to apply the major object-oriented concepts in programming
			CO4	Students will be able to understand the

				advanced features of C++ such as stream I/O, Templates, Operator Overloading, etc.
S.Y.B.B.A (C.A.)	401 New	Networking	**CO1**	Students will be able to gain knowledge about Computer Networks concepts.
			CO2	Students will be able to know about working of networking models, addresses,transmission medias and connectivitydevices.
			CO3	Students will be able to acquire information about network security and cryptography.
S.Y.B.B.A (C.A.)	402	Programming in Visual Basic	**CO1**	Students will be able to understand the basics of visual basic and its implementation
			CO2	Students will be able to develop Graphical User Interface based on problem specified
			CO3	Students will be able to develop and debug application very easily
S.Y.B.B.A (C.A.)	402 New	Object Oriented Concepts Through CPP	**CO1**	Students will be able to acquire an understanding of basic object-oriented concepts and the issues involved in effective class design.
			CO2	Students will be able to enable students to write programs using C++ features like operator overloading, constructor and destructor, inheritance, polymorphism and exception handling.
S.Y.B.B.A (C.A.)	403	Computer Networking	**CO1**	Students will be able to identify the different components in a Communication Systemand their respective roles.
			CO2	Students will be able to describe the technical issues related to the local Area Networks.
			CO3	Students will be able to identify the common technologies available in establishing LAN infrastructure.
S.Y.B.B.A (C.A.)	403 New	Operating System	**CO1**	Students will be able to know the services provided by Operating System
			CO2	Students will be able to know the scheduling concept
			CO3	Students will be able to understand design issues related to memory management and various related algorithms.
			CO4	Students will be able to understand design issues related to File management andvarious related algorithms
S.Y.B.B.A (C.A.)	404	Enterprise Resource Planning and Management	**CO1**	Students will be able to understand ERP and learned about different technologies used.
S.Y.B.B.A (C.A.)	404 New	Advance PHP	**CO1**	Students will be able to know & understand concepts of internet programming.

	(Option)		**CO2**	Students will be able to understand how server-side programming works on the web.
			CO3	Students will be able to understanding How to use PHP Framework (Joomla / Druple)
S.Y.B.B.A (C.A.)	404 New (Option)	Node – JS	**CO1**	Students will be able to understand the JavaScript and technical concepts behind Node JS.
			CO2	Students will be able to structure a Node application in modules.
			CO3	Students will be able to understand and use the Event Emitter.
			CO4	Students will be able to understand Buffers, Streams, and Pipes.
			CO5	Students will be able to build a Web Server in Node and understand how it really works.
			CO6	Students will be able to connect to a SQL or Mongo database in Node.
S.Y.B.B.A (C.A.)	406	Computer Laboratory and Practical Work (VB + C++)	**CO1**	Student will be able to solve the practical problem using Object Oriented Programming Using C++ and Visual Basic
			CO2	Student will be able to construct the programs using bottom-up design approach
			CO3	Students will be able to debug analyze run-time execution of VB and C++ application
			CO4	Students will be able to implement class, function overloading, operating overloading, Polymorphism, templates, etc.
			CO5	Students will be able to use ActiveX controls to improve design and effectiveness of VB application.
			CO6	Students will be able to prepare report in Visual Basic
S.Y.B.B.A (C.A.)	AddOn	JQuery	**CO1**	Students will be able to understand the JavaScript language & the Document Object Model.
			CO2	Students will be able to detect and respond to user actions.
			CO3	Students will be able to Alter, show, hide and move objects on a web page.
SEMESTER V				
T.Y.B.B.A (C.A.)	501	Java Programming	**CO1**	Students will be able to understand programming language concepts, particularly Java and object-oriented concepts.
			CO2	Students will be able to write, debug, and document well-structured Java applications.
			CO3	Students will be able to implement Java classes from specifications and effectively create and use objects from predefined class

				libraries.
			CO4	Students will be able to understand the behavior of primitive data types, object references, and arrays.
			CO5	Students will be able to apply decision and iteration control structures to implement algorithms
T.Y.B.B.A (C.A.)	502	Web Technologies	**CO1**	Students will be able to write a well formed / valid XML document.
			CO2	Students will be able to write a server side java application called Servlet to catchupdate and delete operations on DBMS table.
			CO3	Students will be able to write a server side java application called Servlet to catch form data sent from client, process it and store it on database.
			CO4	Students will be able to write a server side java application called JSP to catch formdata sent from client and store it on database.
T.Y.B.B.A (C.A.)	503	Dot Net Programming	**CO1**	Students will be able to use features of Dot Net Framework along with Visual Basic.
			CO2	Students will be able to develop Graphical User Interface based on problem specified.
			CO3	Students will be able to develop and debug application very easily.
T.Y.B.B.A (C.A.)	504	Object Oriented Software Engineering	**CO1**	Students will be able to describe the three pillars of object-orientation methodologiesand explain the benefits of each.
			CO2	Students will be able to create use case documents that capture requirements for a software system.
			CO3	Students will be able to create class diagrams that model both the domain model and design model of a software system.
			CO4	Students will be able to design the interface between the classes and objects.
			CO5	Students will be able to create an interaction diagrams that models the dynamic aspects ofa software system.
			CO6	Students will be able to understand the facets of the Unified Process approach to designing and building a software system.
			CO7	Students will be able to describe how design patterns facilitate development and list several of the most popular patterns.
			CO8	Students will be able to design the Axioms and corollaries.

			CO9	Students will be able to build a model for the user interface (UI) of a software application
			CO10	Students will be able to measure the Level of User satisfaction and software quality assurance.
T.Y.B.B.A (C.A.)	505	Project work (Based on C++ & VB)	**CO1**	Student is able to prepare software requirements.
			CO2	Students can understand the user/client requirements.
			CO3	Students can design the software using various tools and functions.
			CO4	Students can able to design the framework of the particular topic.
			CO5	Students can prepare different types ofreports of the project.
			CO6	Students can prepare the documentation of the entire project.
T.Y.B.B.A (C.A.)	506	Lab Course (Java & Web tech)	**CO1**	Students will be able to setup up and use a webserver for testing and deploying web applications.
			CO2	Students will be able to learn to create simple static webpages using html tags.
			CO3	Students will be able to learn client side scripting using a scripting language.
			CO4	Students will be able to use DOM concepts for client side scripting.
			CO5	Students will be able to learn server side scripting using database connectivity and report generation.
			CO6	Students will be able to learn the concept of Java application
			CO7	Students will be able to use different swing concepts.
			CO8	Students will be able to learn how to connect front end with backend.
SEMESTER VI				
T.Y.B.B.A (C.A.)	601	Advanced Web Technologies	**CO1**	Students will be able to understand the Mark-up language technology such as XML Structure and tools.
			CO2	Students will be able to understand advanced web technologies such as AJAX.
			CO3	Students will be able to understand advanced web topic such as Web Services.
			CO4	Students will be able to develop a dynamic webpage by using JavaScript and HTML.
			CO5	Students will be able to write a valid XML document

T.Y.B.B.A (C.A.)	602	Advanced Java	**CO1**	The students will have the competence in the use of Java Programming language.
			CO2	The students will be able to develop small to medium sized application programs that demonstrate professionally acceptable coding.
T.Y.B.B.A (C.A.)	603	Recent Trends in IT	**CO1**	Students will be able to analyze the problems.
			CO2	Students will be able to learn how to analyze and create systems to accomplish tasks.
			CO3	Students will be able to evaluate rapidly evolving trends and to integrate knowledge from appropriate fields to make effective and ethical technology decisions.
T.Y.B.B.A (C.A.)	604	Software Testing	**CO1**	Students will understand various test processes and continuous quality improvement.
			CO2	Students will learn types of errors and fault models.
			CO3	Students will understand the methods of test generation from requirements.
			CO4	Students will understand Test adequacy assessment using: control flow, data flow,and program mutations.
			CO5	Students will be able to use of various test tools.
			CO6	Students will be able to use application of software testing techniques in commercial environments.
T.Y.B.B.A (C.A.)	605	Project work (Based on Java & .Net)	**CO1**	Student is able to prepare software requirements.
			CO2	Students can understand the user/client requirements.
			CO3	Students can design the software usingvarious tools and functions.
			CO4	Students can able to design the framework of the particular topic.
			CO5	Students can prepare different types of reports of the project.
			CO6	Students can prepare the documentation of the entire project.
T.Y.B.B.A (C.A.)	606	Lab Course (Advance Java & Advance Web tech)	**CO1**	Students will be able to study the different Java components.
			CO2	Students will be able to learn the different forms of java and php as applicable for effective presentation.
			CO3	Students will be able to study the major components of java and php their integrated

				effect.
			CO4	Students will be able to study the different formats and application packages to create and edit.
			CO5	Students will be able to learn the techniques of database connectivity using different software applications.
			CO6	Students will be able to learn the techniques of video capturing and conversion using different software applications

Name of the Programme: B. Sc. (Computer Science)

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
F.Y.B.Sc .(Computer Science)	CS - 101	Problem Solving Using Computer and 'C' Programming - I	**CO1**	Explore algorithmic approaches to problem solving.
			CO2	Develop modular programs using control structures and arrays in 'C'.
F.Y.B.Sc. .(Computer Science)	CS - 102	Database Management Systems	**CO1**	Solve real world problems using appropriate set, function, and relational models
			CO2	Design E-R Model for given requirements and convert the same into database tables.
			CO3	Use SQL.
F.Y.B.Sc. .(Computer Science)	CS - 103	Practical course on Problem Solving using Computer and 'C' programmingand Database Management Systems	**CO1**	On completion of this course, students will be able to .Devise pseudo codes and flowchart for computational problems.
			CO2	Write, debug and execute simple programs in 'C'.
			CO3	Create database tables in postgreSQL.
			CO3	Write and execute simple, nested queries.
SEMESTER II				
F.Y.B.Sc .(Computer Science)	CS - 201	Advanced 'C' Programming	**CO1**	The student will be able to Develop modular programs using control structures, pointers, arrays, strings and structures
			CO2	The student understands the importance Design and develop solutions to real world problems using C.
F.Y.B.Sc .(Computer Science)	CS - 202	Relational Database Management Systems	**CO1**	On completion of the course, student will be able to Design E-R Model for given requirements and convert the same into database tables.
			CO2	Use database techniques such as SQL & PL/SQL..
			CO3	Explain transaction Management in relational database System responsible for our performance in life.
			CO4	Use advanced database Programming concepts.
F.Y.B.Sc .(Computer	CS - 203	Practical Course on Advanced 'C'	**CO1**	On completion of this course, students will be able to :

Science)		Programming and Relational Database Management Systems		Write, debug and execute programs using advanced features in 'C'.
			CO2	To use SQL & PL/SQL
			CO3	To perform advanced database operations
SEMESTER III				
S.Y.B.Sc (Computer Science).	CS - 231	Data Structures and Algorithms –I	**CO1**	On completion of the course, student will be able to To use well-organized data structures in solving various problems..
			CO2	To differentiate the usage of various structures in problem solution
			CO3	Implementing algorithms to solve problems using appropriate data structures.
S.Y.B.Sc. (Computer Science).	CS - 232	Software Engineering	**CO1**	On completion of the course, student will be able to Compare and chose a process model for a software project development.
			CO2	Identify requirements analyze and prepare models.
			CO3	Prepare the SRS, Design document, Project plan of a given software system.
S.Y.B.Sc. (Computer Science).	CS - 233	Practical course on CS 231 (Data Structures and Algorithms I) and CS 232 (Software Engineering)	**CO1**	student will be able to To use well-organized data structures in solving various problems.
			CO2	Implementing algorithms to solve problems using appropriate data structures.
			CO3	Prepare detailed statement of problem for the selected mini project
			CO4	Identify suitable process model for the same
			CO5	Develop Software Requirement Specification for the project.
			CO6	Identify scenarios and develop UML Use case
			CO7	Other artifacts: Class Diagram, activity diagram, sequence diagram, component diagram and any other diagrams as applicable to the project.
SEMESTER IV				
S.Y.B.Sc. (Computer Science).	CS - 241	Data Structures and Algorithms - II	**CO1**	On completion of this course students will be able to Implementation of different data structures efficiently.

			CO2	The students will able to understand the Usage of well-organized data structures to handle large amount of data
			CO3	The students will be able to understand Usage of appropriate data structures for problem solving.
S.Y.B.Sc. (Computer Science).	CS - 242	Computer Networks-I	**CO1**	Have a good understanding of the OSI and TCP/IP Reference Models and in particular have a good knowledge of Layers.
			CO2	The learner understands the basic Understand the working of various protocols..
			CO3	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies.
S.Y.B.Sc. (Computer Science)	CS - 243	Practical course on CS 241(Data Structures and Algorithms II) and CS 242 (Computer Networks I)	**CO1**	The students will able to understand the codes should be uploaded on either the local server, Moodle, Github or any open source LMS.
			CO2	To understand the basic commands run on cmd. And find the information about the computer pursuing the protocol and different types of address which is required to make communication possible over the network.
			CO3	To understand & identify the class full addressing in IPV4.
SEMESTER V				
T.Y.B.Sc. (Computer Science)	CS - 351	Operating Systems – I	**CO1**	After completion of this course students will be able to understand the concept of Processes and Thread Scheduling by operating system
			CO2	Synchronization in process and threads by operating system
			CO3	Memory management by operating system using with the help of various schemes.
T.Y.B.Sc. (Computer Science)	CS - 352	Computer Networks - II	**CO1**	On completion of the course, student will be able to Student will understand the different protocols of Application layer..
			CO2	Develop understanding of technical aspect

				of Multimedia Systems
			CO3	Develop various Multimedia Systems applicable in real time
			CO4	Identify information security goals.
			CO5	Understand, compare and apply cryptographic techniques for data security.
T.Y.B.Sc. (Computer Science)	CS - 353	Web Technologies - I	**CO1**	Learners shall be able to understand basic concepts and Web Page
			CO2	On completion of the course, student will be able to Understand how to develop dynamic and interactive Web Page
T.Y.B.Sc. (Computer Science)	CS - 354	Foundations of Data Science	**CO1**	On completion of the course, student will be able to– Perform Exploratory Data Analysis
			CO2	Obtain, clean/process, and transform data
			CO3	Detect and diagnose common data issues, such as missing values, special values, outliers, inconsistencies, and localization
			CO4	Demonstrate proficiency with statistical analysis of data.
			CO5	Present results using data visualization techniques
			CO6	Prepare data for use with a variety of statistical methods and models and recognize how the quality of the data and the means of data collection may affect conclusions.
T.Y.B.Sc. (Computer Science)	CS - 355	Object Oriented Programming using Java - I	**CO1**	On completion of the course, student will be able to– Understand the concept of classes, object, packages and Collections.
			CO2	To develop GUI based application.
T.Y.B.Sc. (Computer Science)	CS - 356	Theoretical Computer Science	**CO1**	On completion of the course, student will be able to– Understand the use of automata during language design.
			CO2	Relate various automata and Languages
T.Y.B.Sc. (Computer Science)	CS - 357	Practical Course based on CS - 351	**CO1**	After completion of this course students will be able to understand the concept of Process synchronization
			CO2	Processes and Thread Scheduling by operating system
			CO3	Memory management by operating system using with the help of various schemes
T.Y.B.Sc. (Computer	CS - 358	Practical Course based on CS -	**CO1**	Understand how to develop dynamic and interactive Web Page.

Science)		353 and CS - 354	**CO2**	Prepare data for use with a variety of statistical methods and recognize how the quality of the data may affect conclusions.
			CO3	Perform exploratory data analysis.
T.Y.B.Sc. (Computer Science)	CS - 359	Practical Course based on CS - 355	**CO1**	Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs
			CO2	Read and make elementary modifications to Java programs that solve real-world problems.
			CO3	Validate input in a Java program.
T.Y.B.Sc. (Computer Science)	CS-3510	Python Programming	**CO1**	On completion of the course, student will be able to– Develop logic for problem solving
			CO2	Determine the methods to create and develop Python programs by utilizing the data .
			CO3	structures like lists, dictionaries, tuples and sets.
			CO4	To be familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc.
			CO5	To write python programs and develop a small application project.
T.Y.B.Sc. (Computer Science)	CS-3511	Blockchain Technology	**CO1**	On completion of the course, student will be able to– Learn the fundamentals of Blockchain Technology.
			CO2	Learn Blockchain programming
			CO3	Basic knowledge of Smart Contracts and how they function.
SEMESTER VI				
T.Y.B.Sc. (Computer Science)	CS - 361	Operating Systems-II	**CO1**	After completion of this course students will be able to understand the concept of Management of deadlocks and File System by operating system
			CO2	Scheduling storage or disk for processes
			CO3	Distributed Operating System and its architecture and the extended features in mobile OS.
T.Y.B.Sc. (Computer	CS - 362	Software Testing	**CO1**	To understand various software testing methods and strategies.

Science)			**CO2**	To understand a variety of software metrics, and identify defects and managing those defects for improvement in quality forgiven software.
			CO3	To design test cases and test plans, review reports of testing for qualitative software.
			CO4	To understand latest testing methods used in the software industries
T.Y.B.Sc. (Computer Science)	CS - 363	Web Technologies - II	**CO1**	On completion of the course, student will be able to– Build dynamic website.
			CO2	Using MVC based framework easy to design and handling the errors in dynamic website
T.Y.B.Sc. (Computer Science)	CS - 364	Data Analytics	**CO1**	On completion of the course, student will be able to– Use appropriate models of analysis, assess the quality of input, and derive insight from results.
			CO2	Analyze data, choose relevant models and algorithms for respective applications
			CO3	Understand different data mining techniques like classification, prediction, clustering and association rule mining
			CO4	Apply modeling and data analysis techniques to the solution of real world business problems
T.Y.B.Sc. (Computer Science)	CS - 365	Object Oriented Programming using Java – II	**CO1**	On completion of the course, student will be able to– To access open database through Java programs using JDBC and develop the application
			CO2	Understand and Create dynamic web pages, using Servlets and JSP.
			CO3	Work with basics of framework to develop secure web applications.
T.Y.B.Sc. (Computer Science)	CS - 365	Object Oriented Programming using Java – II	**CO1**	On completion of the course, student will be able to– Access open database through Java programs using Java Data Base Connectivity (JDBC) and develop the application
			CO2	Understand and Create dynamic web pages, using Servlets and JSP.
			CO3	Work with basics of framework to develop secure web applications.
T.Y.B.Sc. (Computer	CS - 366	Compiler Construction	**CO1**	On completion of the course, student will be able to–

Science)				Understand the process of scanning and parsing of source code
			CO2	Learn the conversion code written in source language to machine language.
			CO3	Understand tools like LEX and YACC.
T.Y.B.Sc. (Computer Science)	CS - 367	Practical Course based on CS - 361	**CO1**	After completion of this course students will be able to understand the concept of Management of deadlocks by operating system
			CO2	File System management
			CO3	Disk space management and scheduling for processes
T.Y.B.Sc. (Computer Science)	CS - 368	Practical Course based on CS - 363 and CS - 364	**CO1**	Build dynamic website
			CO2	Using MVC based framework easy to design and handling the errors in dynamic website.
T.Y.B.Sc. (Computer Science)	CS - 369	Practical Course based on CS - 365	**CO1**	To Learn database Programming using Java
			CO2	Understand and Create dynamic web pages using Servlets and JSP.
			CO3	Work with basics of framework to develop secure web applications
T.Y.B.Sc. (Computer Science)	CS - 3610	Software Testing Tools	**CO1**	To understand various software testing methods and strategies
			CO2	To understand a variety of software metrics and identify defects and managing those defects for improvement in quality for given software.
			CO3	To design test cases and test plans, review reports of testing for qualitative software.
			CO4	To understand latest testing tools used in the software industries.
T.Y.B.Sc. (Computer Science)	CS - 3611	Project	**CO1**	To understand the use of technologies how it will be implemented while developing the project. And students must co-relate their knowledge and have confident to represent with well understanding facts.

Name of the Programme: M.Sc. (Computer Science)

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
M.Sc. I (Computer Science)	CSUT111	Paradigm of Programming Language.	**CO1**	To Prepare student to think about programming languages analytically: Separate syntax from semantics.
			CO2	Compare programming language designs.
			CO3	Understand their strengths and weaknesses.
			CO4	Learn new languages more quickly
			CO5	Understand basic language implementation techniques.
			CO6	Learn small programs in different programming Languages.
M.Sc. I (Computer Science)	CSUT112	Design and Analysis of Algorithm	**CO1**	To design the algorithms
			CO2	To select the appropriate algorithm by doing necessary analysis of algorithms.
			CO3	To learn basic Algorithm Analysis techniques and understand the use of asymptotic notation.
			CO4	Understand different design strategies.
			CO5	Understand the use of data structures in improving algorithm performance.
			CO6	Understand classical problem and solutions.
			CO7	Learn a variety of useful algorithms.
			CO8	Understand classification of problems.
			CO9	To provide foundation in algorithm design and analysis.
			CO10	To develop ability to understand and design algorithms in context of space and time complexity.
M.Sc. I (Computer Science)	CSUT113	Database Technologies	**CO1**	Provide an overview of the concept of NoSQL technology.
			CO2	Provide an insight to the different types of NoSQL databases

			CO3	Make the student capable of making a choice of what database technologies to use, based on their application needs.
M.Sc. I (Computer Science)	CSDT114A	Cloud Computing	**CO1**	To understand the principles and paradigm of Cloud Computing.
			CO2	To appreciate the role of Virtualization Technologies.
			CO3	Ability to design and deploy Cloud Infrastructure.
			CO4	Understand cloud security issues and solutions.
M.Sc. I (Computer Science)	CSDP114A	Cloud Computing Practical Assignments	**CO1**	To understand the principles and paradigm of Cloud Computing.
			CO2	To appreciate the role of Virtualization Technologies.
			CO3	Ability to design and deploy Cloud Infrastructure.
			CO4	Understand cloud security issues and solutions.
M.Sc. I (Computer Science)	CSDT114B	Artificial Intelligence	**CO1**	To learn various types of algorithms useful in Artificial Intelligence (AI).
			CO2	To convey the ideas in AI research and programming language related to emerging technology.
			CO3	To understand the numerous applications and huge possibilities in the field of AI that goes beyond the normal human imagination.
M.Sc. I (Computer Science)	CSDP114B	Artificial Intelligence Practical	**CO1**	To learn various types of algorithms useful in Artificial Intelligence (AI).
			CO2	To convey the ideas in AI research and programming language related to emerging technology.
			CO3	To understand the numerous applications and huge possibilities in the field of AI that goes beyond the normal human imagination.
M.Sc. I (Computer Science)	CSDT114C	Web Services	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between

				different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSDP114C	Web Services Practical Assignments	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSUP115	PPL and Database Technologies Practical	**CO1**	To Learn in SCALA PROGRAMS(Control Structures, Arrays, String, Classes and Objects, List, Map, Set)
			CO2	To learn creation of databases, collections, queries and aggregate framework in MongoDB of NoSQL.
			CO3	To learn creation of databases in graph model. Visualize the models after creation, Return properties of nodes, Return the nodes labels, Returnthe relationships with its properties and queries on it in Neo4j of NoSQL.
SEMESTER II				
M.Sc. I (Computer Science)	CSUT121	Advanced Operating System	**CO1**	Course teaches Advanced Operating Systems Concepts using Unix/Linux
			CO2	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO3	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO4	course provides an understanding of the functions of Operating Systems

			CO5	It also provides provide an insight into functional modules of Operating Systems.
			CO6	It discusses the concepts underlying in the design and implementation of Operating Systems.
M.Sc. I (Computer Science)	CSUT122	Mobile Technologies	**CO1**	To impart basic understanding of the wireless communication systems.
			CO2	To expose students to various aspects of mobile and ad-hoc networks.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
M.Sc. I (Computer Science)	CSUT123	Software Project Management	**CO1**	Software Metrics and Project Management covers skills that are required to ensure successful medium and large scale software projects.
			CO2	It examines Requirements Elicitation, Project Management, Verification &Validation and Management of Large Software Engineering Projects.
			CO3	Students learn to select and apply project management techniques for process modeling, planning, estimation, process metrics and risk management; perform software verification and validation using inspections, design and execution of system test cases.
M.Sc. I (Computer Science)	CSDT124A	Project Guidelines	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDP124A	Project Related Assignments	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDT124B	Human Computer Interaction	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user

				feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDP124B	Human Computer Interaction Practical Assignments	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Websites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDT124C	Soft Computing	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.
			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSDP124C	Soft Computing Practical Assignment	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.

			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSUP125	Practical on Advanced OS & Mobile Technologies	**CO1**	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO2	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
SEMESTER III				
M.Sc. II (Computer Science)	CSUT231	Software Architecture and Design Patterns	**CO1**	Recognize the characteristics of patterns that make it useful to solve real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to use specific frameworks as per applications need.
			CO4	To understand about design pattern.
			CO5	Design java application using design pattern techniques.
M.Sc. II (Computer Science)	CSUT232	Machine Learning	**CO1**	Recognize the characteristics of machine learning that make it useful to real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics..

			CO4	Design application using machine learning techniques.
M.Sc. II (Computer Science)	CSUT233	Web Frameworks	**CO1**	Students will be ready with the technology which is used widely in Industry as a part of full stack developer.
			CO2	Students will know the powerful way to develop the web application in Python
			CO3	Students will understand what really the asynchronous programming.
			CO4	Build and deploy robust Django Web App.
			CO5	Integrate with Restful web services.
M.Sc. II (Computer Science)	CSDT234A	Big Data Analytics	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDP234A	Big Data Analytics Practical	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDT234B	Web Analytics	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators

				for a given goal, identify data relating to the metrics and key performance indicators.
M.Sc. II (Computer Science)	CSDP234B	Web Analytics Practical	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators for a given goal; identify data relating to the metrics and key performance indicators
M.Sc. II (Computer Science)	CSDT234C	Project	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer Science)	CSDT234C	Project Related Assignments	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer	CSUP235	Practical on CSUT231,	**CO1**	Able to use specific frameworks as per applications need. .

Science)		CSUT232 and CSUT233	**CO2**	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics.
SEMESTER IV				
M.Sc. II (Computer Science)	CSUT241	Industrial Training /Institutional project	**CO1**	Each student must individually complete minimum 5 months full time Industrial training / Institutional project in the 4th semester.
			CO2	To bridge the gap between academic's and industry.
			CO3	To get the exposure of real time working environment.
			CO4	This is chance for students to work on their own choice project, something that interests and inspire to them to make them comfortable for industry point of view

Name of the Programme: M.Sc. (ComputerApplication)

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
M.Sc. I (Computer Application)	CACCTP-1	Web technology computer	**CO1**	
			CO2	
			CO3	
			CO4	
			CO5	
			CO6	
M.Sc. I (Computer Application)	CACCTP-2	Advance Databases	**CO1**	
			CO2	
			CO3	
			CO4	
			CO5	
			CO6	
			CO7	
			CO8	
			CO9	
			CO10	
M.Sc. I (Computer Application)	CACCTP-3	Design and Analysis of Algorithm	**CO1**	
			CO2	

			CO3	
M.Sc. I (Computer Application)	CACBOTP-1A	Object oriented programming with C++	**CO1**	
			CO2	
			CO3	
			CO4	
M.Sc. I (Computer Application)	CACBOPP-1A	Object oriented programming with C++ Laboratory	**CO1**	
			CO2	
			CO3	
			CO4	
M.Sc. I (Computer Application)	CACCPP-1	Web technology laboratory	**CO1**	
			CO2	
			CO3	
M.Sc. I (Computer Application)	CACBOTP-1B	ASP.NET	**CO1**	
			CO2	
			CO3	
M.Sc. I (Computer Application)	CSDT114C	Web Services	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between

				different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSDP114C	Web Services Practical Assignments	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSUP115	PPL and Database Technologies Practical	**CO1**	To Learn in SCALA PROGRAMS(Control Structures, Arrays, String, Classes and Objects, List, Map, Set)
			CO2	To learn creation of databases, collections, queries and aggregate framework in MongoDB of NoSQL.
			CO3	To learn creation of databases in graph model. Visualize the models after creation, Return properties of nodes, Return the nodes labels, Returnthe relationships with its properties and queries on it in Neo4j of NoSQL.
SEMESTER II				
M.Sc. I (Computer Science)	CSUT121	Advanced Operating System	**CO1**	Course teaches Advanced Operating Systems Concepts using Unix/Linux
			CO2	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO3	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO4	course provides an understanding of the functions of Operating Systems

			CO5	It also provides provide an insight into functional modules of Operating Systems.
			CO6	It discusses the concepts underlying in the design and implementation of Operating Systems.
M.Sc. I (Computer Science)	CSUT122	Mobile Technologies	**CO1**	To impart basic understanding of the wireless communication systems.
			CO2	To expose students to various aspects of mobile and ad-hoc networks.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
M.Sc. I (Computer Science)	CSUT123	Software Project Management	**CO1**	Software Metrics and Project Management covers skills that are required to ensure successful medium and large scale software projects.
			CO2	It examines Requirements Elicitation, Project Management, Verification &Validation and Management of Large Software Engineering Projects.
			CO3	Students learn to select and apply project management techniques for process modeling, planning, estimation, process metrics and risk management; perform software verification and validation using inspections, design and execution of system test cases.
M.Sc. I (Computer Science)	CSDT124A	Project Guidelines	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDP124A	Project Related Assignments	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDT124B	Human Computer Interaction	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user

				feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDP124B	Human Computer Interaction Practical Assignments	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Websites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDT124C	Soft Computing	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.
			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSDP124C	Soft Computing Practical Assignment	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.

			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSUP125	Practical on Advanced OS & Mobile Technologies	**CO1**	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO2	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
SEMESTER III				
M.Sc. II (Computer Science)	CSUT231	Software Architecture and Design Patterns	**CO1**	Recognize the characteristics of patterns that make it useful to solve real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to use specific frameworks as per applications need.
			CO4	To understand about design pattern.
			CO5	Design java application using design pattern techniques.
M.Sc. II (Computer Science)	CSUT232	Machine Learning	**CO1**	Recognize the characteristics of machine learning that make it useful to real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics..

			CO4	Design application using machine learning techniques.
M.Sc. II (Computer Science)	CSUT233	Web Frameworks	**CO1**	Students will be ready with the technology which is used widely in Industry as a part of full stack developer.
			CO2	Students will know the powerful way to develop the web application in Python
			CO3	Students will understand what really the asynchronous programming.
			CO4	Build and deploy robust Django Web App.
			CO5	Integrate with Restful web services.
M.Sc. II (Computer Science)	CSDT234A	Big Data Analytics	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDP234A	Big Data Analytics Practical	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDT234B	Web Analytics	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators

				for a given goal, identify data relating to the metrics and key performance indicators.
M.Sc. II (Computer Science)	CSDP234B	Web Analytics Practical	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators for a given goal; identify data relating to the metrics and key performance indicators
M.Sc. II (Computer Science)	CSDT234C	Project	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer Science)	CSDT234C	Project Related Assignments	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer	CSUP235	Practical on CSUT231,	**CO1**	Able to use specific frameworks as per applications need. .

Science)		CSUT232 and CSUT233	**CO2**	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics.
SEMESTER IV				
M.Sc. II (Computer Science)	CSUT241	Industrial Training /Institutional project	**CO1**	Each student must individually complete minimum 5 months full time Industrial training / Institutional project in the 4th semester.
			CO2	To bridge the gap between academic's and industry.
			CO3	To get the exposure of real time working environment.
			CO4	This is chance for students to work on their own choice project, something that interests and inspire to them to make them comfortable for industry point of view

Table of Contents

Name of the Programme: B.Com.

Name of the class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
F.Y.BCOM	111	Compulsory English-I	**CO1**	Students will develop the students overall linguistic competence and communicative skills
			CO2	Student will develop written and Communication Skills to improves their prospects of employability
F.Y.BCOM	112	Financial Accounting- I	**CO1**	Students will be able to acquire in-depth knowledge
			CO2	Students will be able to acquire in-depth knowledge
			CO3	Students will be able to understand the process and importance of conversion of single entry into double entry system
			CO4	Students will gain knowledge about GST and its implications.
F.Y.BCOM	113	Business Economics-1	**CO1**	Students will understand basic concepts of micro economics
			CO2	Will be able to analyze and interpret ,Will know cardinal and ordinal approach
			CO3	Will understand the concept of consumer surplus, Will understand the concept of demand and elasticity of demand
			CO4	Will understand the concept of supply and able to interpret equilibrium in the market
			CO5	Will understand revenue concept ,Will know economies and diseconomies of scale
F.Y.BCOM	114 (A)	Business Mathematics and Statistics – I	**CO1**	Students will be able to apply concepts of interests and annuities to calculate EMI, prepare amortization schedule, calculate insurance premiums etc.
			CO2	Students will be able calculate dividend, brokerage on shares and mutual funds. Also, students will be able to able to identify the contribution of shares and mutual funds in systematic investment plans and to select best investment options

			CO3	Students will be able to recognize and classify different types of data. Students will be able to take a sample of appropriatesize using suitable method of sampling.
			CO4	Students will be able to calculate measuresof central tendency and measures of dispersion. Students will be able to use appropriate measure of central tendency ormeasure of dispersion for given data to given problems from business or economics.
F.Y.BCOM	114 (B)	Computer Concepts and Application-I	**CO1**	Students familiar with the basics of Operating System and business communication tools.
			CO2	Students familiar with basics of Network, Internet and related concepts.
			CO3	Students about applications of Internet in Commerce.
			CO4	Students about applications of Internet in Commerce.
			CO5	Students understand about e-commerceand M commerce.
F.Y.BCOM	115-A	Organizational Skills Development-I	**CO1**	Conceptual Clarity on meaning of Modern Office, internal and external factors of an office environment.
			CO2	Conceptual clarity on the meaning of Scientific office management and understanding various techniques for scientific management.
			CO3	Technical skills and Critical analysis skills.
			CO4	Development of Technical and Analytical abilities.
F.Y.BCOM	115-B	Banking and finance	**CO1**	Knowledge of evolution of banking.
			CO2	Understanding structure of Indian Banking.
			CO3	Understanding primary and secondary functions of a bank.

			CO4	Understanding the concepts related to lending and ratios.
			CO5	Understanding the process of opening and operating procedure of bank accounts.
			CO6	Understanding various types of bank accounts holders
F.Y.BCOM	116A	Essentials of E-Commerce	**CO1**	Developing understanding on Ecommerce.
			CO2	Awareness on various e-commerce platforms.
			CO3	Technical, Practical, Analytical and Creative Skills.
			CO4	Technical and Practical Skills
F.Y.BCOM	116 - D	Consumer Protection and Business Ethics	**CO1**	Acquaint Knowledge and maturity to understand the consumer's interest.
			CO2	To get training to face emerging issues.To seek career opportunity in this field.
			CO3	To Acquaint knowledge and application oflaws
			CO4	To defend and safety in e commerce. Tolearn e skills.
F.Y. BCOM	116-C	Marketing & Salesmanship	**CO1**	Student will get acquainted with the basicsof marketing field.
			CO2	It will highlight on the core marketing concepts namely 'Marketing Mix'. It will help students to implement this knowledgein practicality by enhancing their skills in the field of market segmentation.
			CO3	Students will develop the skills of Pricingthe product along with gaining knowledge on Product Mix
			CO4	It will help the students to apply the various techniques of Promotion and understand the various channels of distribution
F.Y. BCOM	116-E	Business Environment	**CO1**	Understanding of various aspects business environment useful for would be

		& Entrepreneurs hip – I		entrepreneurs
			CO2	Understanding of various aspects of pollution and its ill effects and Understanding of Problems and their causes and remedies
			CO3	Understanding the concept of entrepreneur, competencies of a successful entrepreneur
SEMESTER II				
F.Y. BCOM		English- I I 121	**CO1**	Students will develop the students overall linguistic competence and communicative skills
			CO2	Student will develop written and Communication Skills to improves their prospects of employability
			CO3	Student will expose the variety of practical skills
F.Y. BCOM	122	Financial Accounting- II	**CO1**	Acquaint themselves with Computerized accounting, its application and utility.
			CO2	Understanding the accounting process of accounting of charitable trusts
			CO3	Analyzing , interpreting and communicating the information containedin basic financial statements and explain the limitations of such statements
			CO4	Learning the concept of intangible assetsand the methods of their valuation
			CO5	Understanding the process and methods of leasing.
F.Y. BCOM	123	Business Economics-II	**CO1**	Will understand the concept and types ofcost
			CO2	Students will know about short run andlong run cost concepts
			CO3	Students will have knowledge about typesof revenue and understand the concept of pure and perfect competition
			CO4	Students will know about the equilibrium of firm and industry in short and long runand will able to compare perfect and

				imperfect competition
			CO5	Will develop ability to understand the market structures under imperfect competition
			CO6	Will understand the theory of marginal productivity and the concept and theoriesin factor pricing
F.Y. BCOM	124(A)	Business Mathematics and Statistics –I I 124 (A)	**CO1**	Students will be able to apply the theory of matrices to solve business and economic problems.
			CO2	Students will be able represent business and economic optimization problems involving two variables as LPP and solvethose problems using graphical method
			CO3	Students will able to predict the type of relationship between bivariate data. Students will be able predict the value of unknown from give bivariate data.
			CO4	Students will be able compute differentindex numbers. Students will be able to compute cost of living
F.Y. BCOM	124(B)	Computer Concepts and Application-II	**CO1**	Familiar with E-commerce Tools
			CO2	Familiar with E-Marketing
			CO3	Familiar with Electronic Payment System
			CO4	Familiar with M-Commerce
F.Y.BCOM	125-A	Organizational Skills Development-II	**CO1**	Conceptual Clarity Goal Setting and Goal Measurement, Enhancing the Time Management Skills
			CO2	Enhancing Communication Skills, Usability of latest communication media
			CO3	Development Technical and analytical skills
			CO4	Development of Technical skills
F.Y.BCOM	125(B)	Banking and finance II	**CO1**	Student will develop the working capability of in banking sector
			CO2	Students aware of Banking Business and

				practices.
			CO3	Students Understand regarding the new concepts introduced in the banking system
F.Y. BCOM	126 A	Essentials of Ecommerce II	**CO1**	Conceptual understanding of ElectronicData Interchange, documentation and merits of EDI.
			CO2	Awareness about payment solutions, various payment methods and modern modes of digital payments.
			CO3	Understanding of E-commerce security, precautions while using E-commerce and methods & Process of E-Commerce security.
			CO4	Technical knowledge about virtual marketand other business to business e- commerce communication.
F.Y. BCOM	126 (D)	Business Ethics-II	**CO1**	Acquaint knowledge and maturity to understand the Business Ethics
			CO2	Application of CSR in various section
			CO3	To analyze corporate governance in India
			CO4	To understand and achieve sustainable development
F.Y.BCOM	126-C	Marketing and Salesmanship - Fundamental of Marketing-II	**CO1**	Students will get knowledge of the basics of salesmanship which is a vital aspect of marketing.
			CO2	It will help the students to implement this knowledge in practicality by enhancing their skills in the field of marketing by using various techniques of salesmanship
			CO3	It will help the students to gain insights about Rural Marketing and its uniqueness
			CO4	It will help the students to gain the insights about recent trends in marketingfield.
F.Y.BCOM	126 (E)	Business Environment & Entrepreneurs	**CO1**	Understanding the difference between entrepreneurial and nonentrepreneurial personalities and thereby getting inspiration to make students personality

		hip – II		entrepreneurial
			CO2	Understanding the significance of entrepreneurship in economy thereby getting inspiration to become entrepreneur
			CO3	Knowing the functions of related institutions
			CO4	Inspiration from study of Biographies to become entrepreneurs
SEMESTER III				
S.Y.BCOM	231	Business Communicati on	**CO1**	Understanding of basic knowledge of Business Communication
			CO2	Understanding of basic knowledge of Business Communication
			CO3	Understanding the knowledge about soft skills.
			CO4	To create awareness about soft skill amongthe students
S.Y.BCOM	232	Corporate Accounting	**CO1**	Developing understanding on applicabilityof various Accounting Standards
			CO2	Knowledge about types of profit and their apportionment
			CO3	Conceptual Clarity and Practical understanding
			CO4	Analytical skills enhancement and Decision-making skills of students will bedeveloped
S.Y.BCOM	233	Business Economics	**CO1**	Students will understand basic concepts of macro economy mics Will be able to analyze and interpret
			CO2	Will know various concepts of national income Will understand the methods of calculation of national income and difficulties involved therein.
			CO3	Will understand Says law of employmentWill understand the difference between classical and Keynesian theory Able to interpret Keynes theory of effective

				demand
			CO4	Will understand the concept of saving and investment Will know the effect of multiplier and acceleration in the economy.
S.Y. BCOM	234	Business Management	**CO1**	Students will get an idea about the basic managerial process
			CO2	Students will get an idea about how planning works in real life.
			CO3	Students will understand the process of implementation of both the concepts
			CO4	Students will understand importance of proper direction and team work.
S.Y.BCOM	235	Elements of Company Law	**CO1**	Acquaint with knowledge and maturity to understand Company law 2013
			CO2	To Acquaint knowledge and application of formation and incorporation of Company
			CO3	To understand the knowledge about the principal documents of the company.
			CO4	To inculcate skills and knowledge aboutthe share capital of the company.
S.Y.BCOM	236 A	Business Administratio n-I	**CO1**	Students will get an idea about how different forms of business organizationscan be formed and operated.
			CO2	Students will understand the impact that various factors operating in external environment can have on business
			CO3	Students will understand the impact that various factors operating in external environment can have on business
			CO4	The development strategies of businesscan be introduced.
S.Y.BCOM	236 B	Banking and Finance-I	**CO1**	Student will get the knowledge about Indian Banking System.
			CO2	Student will understand the role of banking in economic development
			CO3	Student gets the knowledge about working

				of Central Banking in India.
			CO4	To know the functioning of private and public sector banking in India.
S.Y.BCOM	136E	Cost and Works Accounting	**CO1**	To remember and understand basic concept of cost accounting. Developmentof an overall outlook of Cost Accounting
			CO2	Ability to prepare a cost sheet
			CO3	Ability to understand which proceduresare used for purchasing the material 2) Understand the documentation for purchase procedures
			CO4	Understanding methods used for controlling the inventory.
S.Y.BCOM	236 H	Marketing Management	**CO1**	Student will get acquainted with the basicsof Marketing Management subject
			CO2	It will help students to know the preferences, likes and dislikes of the consumer which lead to the further modernization of the sales strategies by marketer.
			CO3	It will help them to implements this knowledge practical situations by enhancing their skills in the field of marketing.
			CO4	To enable the students to study the effectof external environment on decision- making of the firm.
SEMESTER IV				
S.Y.BCOM	241	Business Communicati on-II	**CO1**	Understanding of basic knowledge of Report Writing and Internal Correspondence and Import-Export Correspondence.
			CO2	Learning the Recent Trends in Business Communication.
			CO3	To create ability among the students for Drafting of Business Letters.
			CO4	To create ability among the students about

				Writing Formal Mails and Blog writing
			CO5	To create ability among the students about Writing and Internal Correspondence
			CO6	Also understanding the knowledge of Recent Trends in Business Communication.
S.Y.BCOM	242	Corporate Accounting-II	**CO1**	Developing understanding on accounting procedure for Holding companies.
			CO2	Conceptual understanding, Practical application skills in the process of accounting for Absorption.
			CO3	Practical understanding on Process of Liquidation on companies
			CO4	Updating of Knowledge on recent advances in the field of Accountancy.
S.Y. BCOM	243	Business Economics-II	**CO1**	Students will understand concept and theories of money and able to critically evaluate supply of money in the economies.
			CO2	Will understand the causes and consequences of inflation
			CO3	Will understand the concept of stagflationand understand phases of trade cycle
			CO4	Will understand the types of policies and understand public revenue and public expenditure concept
			CO5	Able to interpret effect of anticyclical policies on the economy
			CO6	Will be able to analyze, interpret and criticize public policies with theoretic albase
S.Y.BCOM	244	Business Management-II	**CO1**	Students will get an idea about how leadership influences organizational success
			CO2	Students will understand the significanceof coordination and control in modern business management.

			CO3	Students will understand the significanceof coordination and control in modern business management.
			CO4	Students will come across various emerging trends in management
S.Y.BCOM	245	Elements of Company Law-II	**CO1**	To Acquaint knowledge and maturity to understand Company management
			CO2	To Acquaint with knowledge and role ofkey managerial person of the Companiesand Rules about CSR.
			CO3	To get training in to various types of meeting and procedure.
			CO4	To enhance skills and knowledge about theE-governance of the company and winding-up of the company.
			CO5	To be able to appreciate the emerging E Governance and E- filing under the Companies Act, 2013. Learn the windingup of company.
S.Y.BCOM	246 A	Business Administratio n-II	**CO1**	Students will get an idea about the legal environment of business
			CO2	Help students understand the importance of various stake holders of business and the efficient way of establishing a rapport withthem for business development Student will understand greater insight on mergers, acquisitions and other strategies
S.Y.BCOM	246 B	Banking and Finance-II	**CO1**	Understand the knowledge of Cooperative Banking in India
			CO2	Student able to analyze the functioning of Development Banking
			CO3	Student will understand Banking Sector Reforms
			CO4	Understand the role of various committeeson Banking Sector Reforms.
S.Y.BCOM	246 E	Cost and Works Accounting	**CO1**	Understanding various methods used in the pricing of the issue of materials
			CO2	Enabling to calculate wage payment and incentives.
			CO3	Understanding the process of job analysis, job evaluation and merit rating.
			CO4	Insight into recent processes used for cost

				reduction
S.Y. BCOM	246 H	Marketing Management	**CO1**	Students will understand how Green Marketing is necessary for marketers touse resources efficiently, so that organizational objectives are achieved without waste of resources.
			CO2	It will help the student to apply the various techniques and methods of E- Marketing practically.
			CO3	It will help them to implement the knowledge of Digital Marketing in practical by enhancing their skills in the field of Marketing.
			CO4	It will help them to gain a solid understanding of the theoretical and conceptual knowledge of international marketing.
SEMESTER V				
T.Y.BCOM	351	Business Regulatory Framework-I	**CO1**	Acquaint knowledge and maturity to understand Contract Law.
			CO2	To give Comprehensive insight about the emerging trend of Arbitration and conciliation and its regulatory mechanism
			CO3	Compressive understanding about the sale of Goods Act. Acquaint knowledge about ownership and delivery of goods.
			CO4	Understand the nature of partnership, Rights and duties of Partner Handling the registration and dissolution of the partnership. Aquent Knowledge about LLP
			CO1	Understand the concept of Contract and its contents. Equip the students with knowledge of nature and performance and breach of Contracts
T.Y.BCOM	352	Advanced Accounting-I	**CO1**	Developing understanding on applicability of various Accounting Standards
			CO2	Knowledge about of the Accounting for Capital Restructuring
			CO3	Conceptual Clarity and Practical understanding of preparation of final accounts of banking companies.
			CO4	Developing knowledge about Investment Accounting
T.Y.BCOM	353	Indian & Global Economic Development-	**CO1**	Students will be able to understand present Economic Scenario of Indian Economy as well as World Economy.
			CO2	Students will be able to understand the

		I		various aspects of development in Agricultural, Industrial and service sector in India.
			CO3	Student will be able to critically evaluate the role of India in international economy.
			CO4	Students will be able to evaluate the working of international financial organization and institutions.
T.Y.BCOM	353	International Economics-I	**CO1**	Students will be able to understand present Economic Scenario of Indian Economy aswell as World Economy.
			CO2	Students will understand the working of foreign trade market and foreign exchange market.
			CO3	Students will be able to comprehend trade policies and concepts related to trade policies.
			CO4	Students will be able to use the subject knowledge in their future academic and professional ventures.
T.Y.BCOM	354	Auditing	**CO1**	Acquaint with knowledge and maturity to understand concept of Auditing, types of Audit and Audit Process.
			CO2	Conceptual Clarity and Practical understanding of Vouching Verification and valuation and Types of Audit Report.
			CO3	Practical knowledge about appointment, reappointment and other related provision. Practical knowledge about Tax Audit as per I.T. Act 1961 (Form 3CA, 3CB & 3CD)
			CO4	Understanding new concepts under Audit of Computerized Systems & Forensic Audit
T.Y.BCOM	355 A	Business Administration – II (Human Resource Management) (355 (a))	**CO1**	Developing Conceptual understanding and Conceptual Clarity Learning of the Latest development in Human Resource
			CO2	Conceptual Clarity and Practical Understanding Hands on Experience Technical Knowledge
			CO3	Conceptual Clarity and Practical understanding Creative and Imaginative Skills Innovation
			CO4	Analytical skills Decision making skills Creative and Imaginative Skills
T.Y.BCOM	PR- 356 (a)	Business Administratio	**CO1**	Acquaint the student with knowledge about Corporate Finance and the structure

		n – III (Finance)		if the Indian Financial Market
			CO2	develop the Financial Planning Skills among the Students by introducing themto the process of efficient Financial Planning
			CO3	educate the students on the importance of Capitalization and the importance to maintaining an optimum capital structure
			CO4	will know about the various sources of Finance available for raising corporate capital
T.Y.BCOM	355-B	Banking and Finance II	**CO1**	Understanding the Indian Financial System. Understanding the meaning, structure and role of Financial System in India.
			CO2	Understanding the meaning, functions, credit instruments, deficiencies and recent development in Money Market in India.
			CO3	Understanding the meaning, definition functions, credit instruments, deficienciesand recent development in Capital Market in India
			CO4	Understanding the meaning, definition functions, participants and recent development in Foreign Exchange Market.
T.Y.BCOM	356-B	Banking and Finance	**CO1**	Understanding the Banking Regulation Act1949 with Objectives and selective Provisions. Understanding the Provisions of Negotiable Instruments Act, 1881
			CO2	Understanding the Objectives, Importance, Selective Definitions and Provisions Insolvency and Bankruptcy
			CO3	Understanding the details Banking Ombudsman Scheme, 2006
T.Y.BCOM	355 – e	Cost and Works Accounting	**CO1**	To remember and understand the conceptof overhead and classification of overheads
			CO2	Understanding the significance of overheads in the total cost of product/service.
			CO3	Ability to understand the stages in the process of accounting overheads.
			CO4	Application of accounting treatment for under and over absorption.
			CO5	Knowledge about detection of overheadsto different activities

T.Y.BCOM	356-E	Works Accounting III	**CO1**	Development of overall outlook of Marginal Costing.
			CO2	Develop the knowledge about preparation of various types Budgets
			CO3	Understand the implementation n of Interfere comparison
			CO4	Understand the implementation n of modern costing environment
T.Y.BCOM	355 (h)	Marketing Management-II	**CO1**	To equipped with a comprehensive understanding of the key factors in demand and sales forecast.
			CO2	Familiarizing the students with the application of the concept & need of marketing in Non-profit organization.
			CO3	Understanding marketing organization and its changing role
			CO4	Understanding the concept and importance of Building Brand Strategy, as well as its relationship in reviewing to competitive advantage
T.Y.BCOM	356(H)	Marketing Management-III	**CO1**	Student will understand the concept of advertising and advertising media
			CO2	To enable them to analyze and interpret
			CO3	To enable the students to study the Appeals and Approaches in Advertisement
			CO4	It will help the students to apply the various Economic and social aspects of advertising.

			CO5	It will help them to implement thisknowledge in practical situations by enhancing their skills in the field of Marketing

Name of the Programme: M.Com.

Name of the Class	Course Code	Course Title		Course Outcomes
SEMESTER I				
M.COM-I	101	Management Accounting	**CO1**	Student will understand the concept of Marginal Costing, its applications, different techniques, of managerial cost accounting and Fixed and Variable Cost Analysis in decision making process.
			CO2	Understand the concept of budget and budgetary control, types of budgets and preparation of functional budgets in an organization.
			CO3	Understand the concept of Working Capital Management, determination of working capital, components of working capital and accounts receivable and inventory management.
			CO4	Student will understand the concept of Financial Accounting and its limitations, emergence of Management Accounting and Cost Accounting, its advantages and distinction between Management Accounting and Cost Accounting
M.COM-I	102	Strategic Management	**CO1**	Conceptual Clarity on Strategic management
			CO2	Development effective Strategy formulation and analytical ability and Skills to design Strategic Plan
			CO3	Development of Applicability skills and Technical skills
			CO4	Development of Technical and Analytical abilities
M.COM-I	103	Advanced	**CO1**	Getting familiar with the Advanced Concepts

		Accounting Group A	**CO2**	Understanding the Consolidation of Financial Statements of Holding Companies & two Subsidiary Companies
			CO3	Prepare Statement of Affairs of the Companies in Liquidation
			CO4	In the today's competitive Corporate World to understand the needs and methods of valuation of Goodwill & Shares
M.COM-I	104	Income Tax Group A	**CO1**	Understand provide the basic knowledge of Income Tax Act. 1961
			CO2	Understand the concepts of Heads of Income and to compute the income under each head.
			CO3	Understand the concept of deductions and provisions of Sec. 80C to 80U
			CO4	Compute the taxable income of an Individual , Hindu Undivided Family and Companies.
M.COM-I	107	Advanced Cost Accounting Group -C	**CO1**	Development of overall outlook of Cost Accounting
			CO2	Understanding the related weightage of employee cost in the total cost of product/service
			CO3	Understand the significance of overheads in the total cost of product/service
			CO4	Understand formats of cost sheets as per Industry Specifications
M.COM-I	108	Costing Technique Examination s and Responsibility Accounting Group-C	**CO1**	Understand Budget Preparation Process
			CO2	Understand the impact of adverse and favourable variances on cost of a product/service
			CO3	Understand the industry specific cost ratios.
			CO4	To understand the importance of various tools to evaluate the business centers.
M.COM-I	113	Production and Operation Management Group F	**CO1**	Awareness on Career opportunities in Supply Chain, Management Introduction to Alternative Career opportunities
			CO2	Development of Innovative abilities and Application oriented skill
			CO3	Awareness on the recent and emerging areas Change in overall

				perception towards quality enhancement
M.COM-I	114	Financial Management Group-F	**CO1**	Developing understanding on Financial Management
			CO2	Developing Financial Statement analysis skills
			CO3	Developing Decision making Skills
			CO4	Developing skills for effective Credit and Working Capital Management
SEMESTER II				
M.COM-I	201	Financial Analysis and Control	**CO1**	Application of IT for financial analysis
			CO2	Understanding basics of financial analysis
			CO3	To gain knowledge of practically comparing financial results of different years and different
			CO4	Understand the importance of cash liquidity in an organization. To understand the computation of cash and fund flows under operating, investing and financing categories. companies. Develop the skill of appropriate use of different ratios to evaluate the financial performance of entities
M.COM-I	202	Industrial Economics	**CO1**	Will get an overview of industrial economics
			CO2	Will know about the concepts used in industrial economic
			CO3	Students will understand the theories of industrial location
			CO4	Students will know about industrial imbalance in India
			CO5	Students will know about industrial productivity and efficiency
			CO6	Students will know about industrial productivity, size of firms etc.
			CO7	Students will know about industrial finance and its sources
			CO8	Students will understand problems of small and micro industries in India
M.COM-I	203	Specialized Areas	**CO1**	Describe how contract accounting is used for performance

		in Accounting Group A		evaluation and decision making Recalls the distinction between Amalgamation in the nature of of purchase and analyses the situation where the Alteration of share capital and internal reconstruction is required
			CO2	To develop competency of students to solve problems relating Special areas in accounting including accounting for Services Sector
			CO3	To Maintain different types of ledgers, prepare documents such as Invoice, Credit Note and Debit Note, identify the different types of returns and their applicability to the business, Monthly Returns, Quarterly Return
M.COM-I	204	Business Tax Assessment & Planning Group A	**CO1**	Understand the provision for computation of income of various entities.
			CO2	Understand the provisions of returns, assessment and procedure of assessment
			CO3	Understand need and importance of Tax Planning and Management
			CO4	Understand the Basic concept and framework under GST Act & Customs Act.
M.COM-I	207	Application Cost Accounting Group -C	**CO1**	Learners must be able to reconcile the cost and financial data
			CO2	Understand the concepts of PLC and VCA
			CO3	Understand the Cost Distortions in Traditional Costing and compare it with ABC.
M.COM-I	208	Cost Control & Cost System Group -C	**CO1**	Students must understand the role of Marginal Costing in short term decision making.
			CO2	Understand the relevance of pricing
			CO3	Students will be able understand process of installation of costing system.
			CO4	Develop insight into Cost Reduction and Cost Control technique & to understand measurement of productivity

M.COM-I	213	Business Ethics and Professional Values Group-F	**CO1**	Understand How companies ethically operate
			CO2	Understand how CSR activities help the society for better living
			CO3	Understand how ethical practices can be adopted in different areas of business
			CO4	Awareness on the importance of environmental issues and Sustainable Development
M.COM-I	214	Elements of Knowledge Management Group -F	**CO1**	Developing Conceptual Skill and Improving analytical Ability .
			CO2	Developing Technical and Practical Oriented Skills
			CO3	Understands Value based and Application Oriented Skills
			CO4	Understands Administrative and Management skills
SEMESTER III				
M.COM-II	301	Business Finance	**CO1**	Students will be able to understand the role and importance of corporate finance, and learn the calculation value of money.
			CO2	Students will be able to understand the financial planning, theories of capitalization and estimation of finance need of firm.
			CO3	Students will be able to learn the sources of finance to be tapped for running business successfully.
			CO4	Students will be able to apply best practice in working capital management.
M.COM-II	302	Research Methodology For Business	**CO1**	Students will be able to understand the role and importance of corporate finance, and learn the calculation value of money.
			CO2	Students will be able to understand the financial planning, theories of capitalization and estimation of finance need of firm.
			CO3	Students will be able to learn the sources of finance to be tapped for running business successfully.
			CO4	Students will be able to apply best practice in working capital management.
M.COM-II	303	Advanced Auditing Group-A	**CO1**	To develop the knowledge about auditing standard.
			CO2	To know about the practice of Company Auditor
			CO3	Develop knowledge about Corporate Governance and audit

				committee
			CO4	Use of computer in audit
M.COM-II	304	Specialized Auditing Group-A	**CO1**	Student must able to understand new concept of auditing
			CO2	Student must able to understand process of internal audit
			CO3	Student must able to understand auditing in banks
			CO4	Students should know the application of auditing in cooperative sector in country like India
M.COM-II	307	Cost Audit Group-C	**CO1**	Understand importance of cost audit
			CO2	Understand the role and responsibility of cost auditor
			CO3	Able to prepare plan for cost audit Able to understand how to draft Cost Audit Report.
M.COM-II	308	Management Audit Group-C	**CO1**	Understanding importance of management Audit
			CO2	Understanding The Procedure Of Management Audit
			CO3	Understanding Corporate Image In Management Audit
			CO4	Able To Understand Different Areas Of Management Audit
			CO5	Help To Understand Operational Audit.
M.COM-II	313	Human Resource Management Group-F	**CO1**	The student will be able to understand The Definition and meaning of Human Resource Management, its Concept, Approaches, Functions ▪ Can identify that the HRM is profession or not. ▪ Able to cope with the concept Human Resource Environment. ▪ Place of female employee in the organization. ▪ Identify the changing Role of Human Resource Management.
			CO2	The Objectives of Human Resource Planning and Development. ▪ Need and Estimation for Human Resource Planning and Development. ▪ Can understand the recruitment and selection process. ▪ Understand the concept of Retention of Manpower, Succession Planning
			CO3	Kinds of Retirement, Resignation, Discharge, Dismissal, Suspension, Lay off. ▪ Identify he recent trends in HRM
M.COM-II	314	Organizational Behaviour	**CO1**	The Definition and meaning of organizational Behaviour Able to cope with the role of technology in organization. Describe the

				theoretical and conceptual framework of Organizational Behavior ▪ Analyze the impact of globalization
			CO2	To be understand the Concept and characteristics of Emotional Intelligence
			CO3	To be well acquainted with Emotional intelligence in the Workplace
			CO4	To understand the meaning and Causes of Stress ▪ Get detail knowledge about the Conflict ▪ To be understand Concept and Types of Group and Team building
SEMESTER IV				
M.COM-II	401	Financial Services 401	**CO1**	Students will be able to learn the importance and working of capital market.
			CO2	Student will be able to understand the working of BSE and NSE, and OTCEI in detail.
			CO3	Students will be able to know the role of inter-mediatories, Mutual funds. Portfolio management.
			CO4	Students will be able to know the role of SEBI in regulating stock exchanges and investors' education, financial advisors.
M.COM-II	402	Industrial Economic Environment	**CO1**	Will understand the impact of economic and non – economic factors affecting industrial environment
			CO2	Will understand role of various types of industries in India like small scale industries, public sector industries, MNCs etc.
			CO3	Critically evaluate industrial polices in India
			CO4	Analyze the impact of new industrial policy adopted by India
			CO1	Will understand role, progress and problems of manufacturing and service industries in India
M.COM-II	403	Recent Advances in Accounting, Taxation & Auditing Group-A	**CO1**	Students will know the professionalism in Accounting process
			CO2	Students will understand the benefit of new reforms among different stakeholders.
			CO3	Students will understand the application of new accounting methods for better efficacy building
			CO4	Students will understand the need for emerging trends in

				accountancy
M.COM-II	407	: Recent Advances in Cost Auditing and CostSystem	**CO1**	Understand Cost Accounting Standards in depth Audit
			CO2	Understand GST and Productive Audit
			CO3	Understanding ERP
			CO4	Able to understand different areas of recent changes
M.COM-II	413	Recent Advances in Business Administration	**CO1**	Can identify dimensions Approaches towards managing change. Able to cope with the futuristic and Strategic approaches due technology.
			CO2	Able to know the challenges before customer centric organization ▪ Identify the best practices and way to measure the success of customer centric company.
			CO3	Able to Know the cross cultural Management issues. ▪ Able to identify to aquatint the role, importance and current trends in merger
			CO4	Identify the prerequisite for success. ▪ Able to identify the concept and significance of Restructuring and Reengineering of Business. ▪ Able to cope with the steps of innovation management. And also the role of various institution for promoting.

Name of the Programme: B.B.A.

Name of the Class	Course Code	Course Title	Course Outcome	
SEMESTER I				
F.Y.B.B.A.	101	Business Organisation & System	**CO1**	Students shall be able to explain why information systems are so important today for business and management.
			CO2	Students shall have the knowledge of the different forms of Business systems
			CO3	Students shall develop the spirit of entrepreneurship among the students.
			CO4	Students shall have the knowledge of Domestic and Foreign Trade.
	102	Business Communication Skills	**CO1**	Students shall improvise their skills such as linguistic, non-linguistic and Paralinguistic skills.
			CO2	Students shall develop integrative approach where reading, writing, oral and speaking components are used together to enhance the students' ability to communicate and write effectively.
			CO3	Students shall be aware about various Methods and Media of communication.
	103	Business Accounting	**CO1**	The students have acquired sound knowledge of basic concepts of accounting.
			CO2	Students also understood about recording of transactions and preparation of final accounts.
			CO3	Students got exposure about various accounting software packages.

	104	Business Economics (Micro)	**CO1**	Students shall understand how households (demand) and businesses (supply) interact in various market structures to determine price and quantity of a good produced.
			CO2	Students shall understand the links between household behavior and the economic models of demand
			CO3	Students shall represent demand, in graphical form, including the downward slope of the demand curve and what shifts the demand curve.
			CO4	Students shall understand the links between production costs and the economic models of supply.
			CO5	Students shall represent supply, in graphical form, including the upward slope of the supply curve and what shifts the supply curve.
			CO6	Students shall understand how different degrees of competition in a market affect pricing and output.
	105	Business Mathematics	**CO1**	Students shall understand applications of matrices in business.
			CO2	Students shall understand the concept and application of Permutations& Combinations in business.
			CO3	Students shall use L.P.P. and its applications in business.
			CO4	Students shall understand the concept of Transportation problems & its applications in business world.
			CO5	Students shall understand the concept of shares & share market.
	106	Business Demography and Environmental Studies	**CO1**	Students shall understand Distribution of Population and Population Growth.
			CO2	Students shall be aware regarding Environment and Environmental issues related to Business

			CO3	Students shall understand the problems of urbanization
SEMESTER II				
F.Y.B.B.A.	201	Principles of Management	**CO1**	Students shall demonstrate an understanding of effective management principles as outlined in selected text learning objectives.
			CO2	Students shall apply effective management strategies, principles and techniques.
			CO3	Students shall demonstrate research and analytical skills by using both human and technological resources
			CO4	Students shall demonstrate the ability to communicate effectively.
	202	Principles of Marketing	**CO1**	Students shall get familiar to basic concepts of marketing, it's general nature, scope and importance.
			CO2	Students shall receive appropriate knowledge and understanding of its primary functions and applications and its gradual evolution and development.
			CO3	Students shall develop basic and essential skills related to marketing.
			CO4	Students shall get a learning platform for preparing for marketing employability opportunities essential for industries.
	203	Principles of Finance	**CO1**	Students understood the nature, importance, structure of finance related areas.
			CO2	Knowledge regarding sources of finance for a business.
	204	Basics of Cost Accounting	**CO1**	Students got the Knowledge of Basic cost concepts, element of cost & preparation of Cost Sheet.
			CO2	Basic knowledge of important Methods of costing was given to the students.

	205	Business Statistics	**CO1**	Students shall be able to understand the basics of statistics – concept of population and sample & to use frequency distribution to make decision.
			CO2	Students shall be able to understand and calculate various types of averages and variation.
			CO3	Students shall be able to understand Correlation and use of regression analysis to estimate the relationship between two variables and its applications.
			CO4	Students shall be able to understand the concept – Time Series and its applications in business.
			CO5	Students shall be able to understand the concept – Index numbers and applications in business.
			CO6	Students shall be able to imbibe research culture among students.
	206	Business Informatics	**CO1**	Students shall know the basics of Computer
			CO2	Student shall understand the basics of networking
			CO3	Student shall the basics of internet.
			CO4	Student shall the basics of databases.
SEMESTER III				
S.Y.B.B.A.	301	Personality Development	**CO1**	Students shall be aware about the dimensions and importance of effective personality
			CO2	Students shall understand personality traits and formation and vital contribution in the world of business
			CO3	Students shall get aware about various dynamics of personality development

	302	Business Ethics	**CO1**	Students shall get knowledge of Business Ethics
			CO2	Students shall witness promotions of Ethical Practices in the Business
			CO3	Students shall develop Ethical and Value Based thought process among the future manager's entrepreneurs
S.Y.B.B.A.	303	Human Resource Management and Organisation Behaviour	**CO1**	Students studying HRM /OB acquire the knowledge, critical thinking, and practical skills that will enable them to create organizational effectiveness, lead human resources management strategies, and enhance the human condition at work.
			CO2	HRM/OB students learn to think critically about the challenges involved in creating high performance workplaces where innovation, diversity, and ethical behaviour are valued and rewarded.
			CO3	HRM/OB Majors are educated in Human Resources Management (HRM), Organizational Behaviour (OB) and Industrial Relations (IR).
S.Y.B.B.A.	304	Management Accounting	**CO1**	Students got the basic knowledge of Management Accounting.
			CO2	To know the implications of various financial ratios in decision making.
			CO3	Significance of working capital in business.
			CO4	Students got the concept of budgetary control and its application in business.
			CO5	Students got the calculating ability of various techniques of management accounting.
S.Y.B.B.A.	305	Business Economics	**CO1**	Students shall study the behavior of working of the economy asa whole.

		(Macro)	**CO2**	Students shall develop an analytical framework to understand the inter-linkages among the crucial macroeconomic variables.
			CO3	Students shall apply economic reasoning to problems of business and public policy.
S.Y.B.B.A.	306	I.T. in Management	**CO1**	The study describes the role of information systems in business.
			CO2	It studies the current issues of information technology and relate those issues to the firm.
SEMESTER IV				
S.Y.B.B.A.	401	Production and Operations Management	**CO1**	Students shall identify and articulate how operations management contributes to the achievement of an organization's strategic objectives.
			CO2	Students shall critically evaluate the operations function in manufacturing and service production settings.
			CO3	Students shall appraise and apply forecasting methods as the basis of management's planning and control activity.
			CO4	Students shall assess and formulate decision making strategies to address operating issues that have short, intermediate or long lead times.
			CO5	Students shall evaluate approaches to problem solving and process improvement in production settings.
	402	Industrial Relations & Labour Laws	**CO1**	Students understood the relationship between Labour and Management.
			CO2	Resolving of Industrial disputes and Grievances
			CO3	Students understood the laws which effects the industry andLabour
	403	Business Taxation	**CO1**	Students got to understand the basic concepts and definitionsunder the Income Tax Act, 1961.

			CO2	Students were given latest development in the subject of taxation.
			CO3	Acquired knowledge about Computation of Income under different heads of Income of Income Tax Act, 1961.
			CO4	Acquired knowledge about the submission of Income Tax Return, Advance Tax, Tax deducted at Source, Tax Collection Authorities.
			CO5	Students became Competent enough to take up to employment in Tax planner.
			CO6	To develop ability to calculate taxable income of firms, co-operative societies and charitable trust.
S.Y.B.B.A.	404	International Business	**CO1**	Students shall get acquainted with emerging issues in international business
			CO2	Students shall study the impact of international business environment on foreign market operations
			CO3	Students shall understand the importance of foreign trade for Indian economy.
S.Y.B.B.A.	405	Management Information System	**CO1**	Students became Competent enough to understand the concepts of Information System
			CO2	Understood the concepts of system analysis and design
			CO3	Students understood the issues in MIS.
S.Y.B.B.A.	406	Business Exposure (Field Visits)	**CO1**	Students shall develop their understanding with a realistic and practical perception of the industry its layout, procedures, processes, organization structure.
			CO2	Students shall gain firsthand information regarding the functioning of the Industry which presents the students with opportunities to plan, organize and engage in active learning experiences both inside and outside the classroom.
SEMESTER V				

T.Y.B.B.A.	501	Supply Chain and Logistics Management	**CO1**	Upon successful completion of program students able to 1. Describe major logistics functions and activities.
			CO2	Differentiate logistics and supply chain management.
			CO3	Describe methods of inventory planning.
			CO4	Explain how technology has and continues to change logistics and supply chain management
			CO5	Compare modes of transportation.
			CO6	Describe warehouse processes, systems, and performance measures.
			CO7	Describe documentation and terms of sale for international shipments.
	502	Entrepreneurship Development	**CO1**	Graduate Entrepreneurship Students will be able to … Demonstrate a fundamental comprehension of business opportunity evaluation, from the perspective of a prospective investor.
			CO2	Identify the most recognized sources of potential funding and financing for business start-ups and/or expansion.
			CO3	Demonstrate extemporaneous speaking skills developed through in-class discussion of text materials, case study analyses, and current entrepreneurship-related issues.
			CO4	Assess their own personal work products creativity and how those could apply to their own real life, future business ventures.
	503	Business Law	**CO1**	Students understood basic legal terms and concepts used in law pertaining to business
			CO2	Applicability of legal principles to situations in Business world.
	504	Research Methodology (Tools and Analysis)	**CO1**	Students shall gain basic understanding of research process and tools for the same.
			CO2	Students shall gain understanding of the tools and techniques necessary for research and report writing.

	505A	Analysis of Financial Statements	**CO1**	Students learnt the interpretation and analysis of financial statements effectively.
			CO2	The student got well acquainted with current financial practices
			CO3	Students became intensive users of financial statements as part of their professional responsibilities.
	505B	Sales Management	**CO1**	Students shall demonstrate an understanding of the role that a sales force plays in marketing strategies
			CO2	Students shall describe the selling process.
			CO3	Students shall Understand the factors that affect sales forcesuccess.
			CO4	Students shall identify and explain the processes involved in recruiting, selecting, training, motivating, compensating, and retaining salespeople.
	505C	HRM Principles & Functions	**CO1**	Students shall understand HR Recruitment and Selection.
			CO2	Students shall get aware about Training, development and evaluation system in HR
			CO3	Students shall understand how to prepare Personnel recordsreports and audit.
			CO4	Students shall study in detail New trends in HRM and exit policy
	506A	Long Term Finance	**CO1**	Students got the capability to make long-term financing.
			CO2	Students were well-acquainted regarding current financial structure.
	506B	Retail Management	**CO1**	Compare and contrast traditional retailers and category specialists Describe how technology (e.g., customer databases, integrated systems, and buying and sales forecasting systems) is used to support retail businesses
			CO2	Evaluate the effectiveness of merchandising decisions in the retail industry Explain the factors relating to visual merchandising, such as store layouts and presentation Compare

				the strategies that are used within the different stages of a product's life cycle
			CO3	Students shall describe the flow of goods and services in a retail environment.
	506C	Human Resource Practices	**CO1**	Students shall get introduced to Strategic HRM
			CO2	Students shall understand Working Conditions & Welfare
			CO3	Students shall understand Employee Grievance & Discipline
			CO4	Students shall get aware of E- Human Resource studies
SEMESTER VI				
T.Y.B.B.A.	601	Business Planning and Project Management	**CO1**	Students shall learn to manage the scope, cost, timing, and quality of the project, at all times focused on project
			CO2	Students shall align the project to the organization's strategic plans and business justification throughout its lifecycle
			CO3	Students shall identify project goals, constraints, deliverables, performance criteria, control needs.
			CO4	Students shall implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success
	602	Event Management	**CO1**	Students shall get acquainted with concepts, issues and various aspects of event management.
	603	Management Control System	**CO1**	Students understood the function of management control, its nature, functional areas, and techniques.
	604	E-Commerce	**CO1**	Students shall understand the basic concepts and technologies used in the field of management information systems.
			CO2	Students shall be aware of the ethical, social, and security issues of information systems.
			CO3	Students shall assess the impact of the Internet and Internet technology on business electronic commerce and electronic business.
			CO4	Students shall identify the major management challenges to building and using information systems and learn how to find appropriate solutions to those challenges.

	605A	Financial Services	**CO1**	Students got aware of various financial services and financial markets in India.
	605B	Advertising and Sales Promotion	**CO1**	Students shall develop knowledge and understanding of importance and functions of advertising
			CO2	Students shall understand Key features of Sales Promotion
	605C	Labour Laws	**CO1**	Students shall get an introduction to Labour Laws in India
			CO2	Students shall understand the Acts Such as - The Employees Provident Funds and Miscellaneous Provisions Act,1952; The Child Labour (Prohibition and Regulation) Act,1986; Maternity Benefits Act,1961 and The Employees State Insurance Act,1948.
	606A	Cases in Finance	**CO1**	The students understand and prepare a project report on Various topics of finance.
	606B	Cases in Marketing	**CO1**	Students shall get hands on application of theory by practicing via projects and cases.
	606C	Cases in HRM	**CO1**	Students shall understand the actual application of theoretical aspects and laws by the means of live projects.

Name of the Programme: BBA-CA

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
F.Y.B.B.A (C.A.)	101	Modern Operating Environment and MS Office	**CO1**	The student will be able to recognize when to use each of the Microsoft Office programs to create professional business documents.
			CO2	The student will be able to use Microsoft Office programs to create personal and/or business documents following current professional and/or industry standards
			CO3	The student will be able to pursue future courses specializing in one or more of the programs.
			CO4	The student will be able to apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace and in future coursework as identified by the internationally accepted Internet and Computing Core (IC3) standards.
F.Y.B.B.A (C.A.)	101 New	Business Communication Skills	**CO1**	The student will be able to understand the role of communication in personal and business world.
			CO2	The student will be able to understand system and communication and their utility
			CO3	The student will be able to develop proficiency in how to write business letters.
F.Y.B.B.A (C.A.)	102	Financial Accounting	**CO1**	The students have acquired sound knowledge of basic concepts of accounting
			CO2	Students also understood about recording of transactions and preparation of final accounts
			CO3	Students got exposure about various accounting software packages.
F.Y.B.B.A (C.A.)	102 New	Principles of Management	**CO1**	The student will be able to understand basic concept regarding org. Business Administration.
			CO2	The student will be able to examining various management principles.
			CO3	The student will be able to develop managerial skills among the students.
F.Y.B.B.A	103	Principles of	**CO1**	The student will be able to apply knowledge

(C.A.)		Programming and Algorithm		of mathematics, science, and engineering
			CO2	The student will be able to learn how to solve common types of computing problems.
			CO3	The student will be able to design and conduct experiments, as well as to analyze and interpret data.
			CO4	The student will be able to design a system, component, or process to meet desired needs within realistic constraints.
			CO5	The student will be able to function on multidisciplinary teams.
F.Y.B.B.A (C.A.)	104	Business Communication	**CO1**	Students shall understand the concept, process and importance of communication
			CO2	Students shall develop an integrative approach where reading, writing, presentation skills are used together to enhance the students' ability to communicate and write effectively
			CO3	Students shall be awareness among students about Methods and Media of communication
			CO4	Students shall get familiar with information technology and improve job seeking skills.
F.Y.B.B.A (C.A.)	105	Principles of Management	**CO1**	The student will be able to understand basic concept regarding org. Business Administration.
			CO2	The student will be able to examining various management principles.
			CO3	The student will be able to develop managerial skills among the students.
F.Y.B.B.A (C.A.)	105 New	Business Statistics	**CO1**	Students will be able to understand role and importance of statistics in various business situations
			CO2	Students will be able to develop skills related with basic statistical technique
			CO3	Students will be able to develop right understanding regarding regression, correlation and data interpretation
F.Y.B.B.A (C.A.)	106	Laboratory Course (Ms. Office, Tally, PPA)	**CO1**	Students will be gain useful knowledge and demonstrate correct application of features of Ms. Office.
			CO2	Students will be able to easily create and edit workbooks having multiple sheets for different purposes and situations.
			CO3	Tally gives the platform to report the

				financial transaction with excessive ease.
			CO4	An ability to design a system, component, or process to meet desired needs within realistic constraints.
SEMESTER II				
F.Y.B.B.A (C.A.)	201	Procedure Oriented Programming using "C"	**CO1**	The student will be able to understand the working of a digital computer.
			CO2	The student will able to analyze a given problem and develop an algorithm to solve the problem
			CO3	The student will able to improve upon a solution to a problem.
			CO4	The student will able to use the 'C' language constructs in the right way.
			CO5	The student will able to design, develop and test programs written in 'C'
F.Y.B.B.A (C.A.)	201 New	Organizational Behavior & Human Resource Management	**CO1**	The student will able to understand basic concept of HRM & OB
			CO2	The student will able to make aware students about traditional & modern methods of procurement & development in organization.
			CO3	The student will able to know the major trends in HRM & OB
F.Y.B.B.A (C.A.)	202	Database Management Systems	**CO1**	The student will able to learn the basic concepts and understand the applications of database systems.
			CO2	The student will able to construct an Entity-Relationship (E-R) model from specifications and to transform to relational model.
			CO3	The student will able to construct unary/binary/set/aggregate queries in Relational Algebra.
			CO4	The student will able to understand and apply database normalization principles.
F.Y.B.B.A (C.A.)	202 New	Financial Accounting	**CO1**	The student will able to develop right understanding regarding role and importance of monetary and financial transactions in business.
			CO2	The student will able to cultivate right approach towards classifications of different transactions and their implications.
			CO3	The student will able to develop proficiency preparation of basic financial as to how to write basis accounting statement - Trading and P&L.
F.Y.B.B.A (C.A.)	203	Organizational Behavior	**CO1**	The students will able to define, explain and illustrate a range of organisational behaviour

				theories.
			CO2	The students will able to analyse the behaviour of individuals and groups in organisations in terms of organisational behaviour theories, models and concepts.
			CO3	The students will able to apply organisational behaviour concepts, models and theories to real life management situations.
			CO4	The students will able to demonstrate a critical understanding of organisational behaviour theories.
			CO5	The students will able to communicate effectively about organisational behaviour theories and their application using appropriate concepts.
			CO6	The students will able to explain group dynamics and demonstrate skills required for working in groups (team building)
F.Y.B.B.A (C.A.)	203 New	Business Mathematics	**CO1**	The students will able to understand role and importance of Mathematics in various business situations and while developing softwares.
			CO2	The students will able to develop skills related with basic mathematical technique
F.Y.B.B.A (C.A.)	204	Computer Applications In Statistics	**CO1**	Students shall understand the power of excel spreadsheet in computing summarystatistics.
			CO2	Students shall understand the concept of various measures of central tendency and variation and their importance in business
			CO3	Students shall understand the concept of probability, probability distributions and simulations in business world and decision making.
F.Y.B.B.A (C.A.)	204 New	Relational Data Base	**CO1**	The students will able to understand relational database concepts and transaction management concepts in database system.
			CO2	The students will able to write PL/SQL programs that use: procedure, function, package, cursor and trigger.

F.Y.B.B.A (C.A.)	205	E-Commerce Concepts	**CO1**	The students will able to Describe an example of system architecture for an e-Business.
			CO2	The students will able to identify the major electronic payment issues and options.
			CO3	The students will able to discuss security issues and explain procedures used to protect against security threats.
F.Y.B.B.A (C.A.)	205 New	Web Technology (HTML-JSS-CSS)	**CO1**	The students will able to know & understand concepts of internet programming.
			CO2	The students will able to understand how to develop web based applications using JavaScript.
F.Y.B.B.A (C.A.)	206	Laboratory Course (C- Programming, DBMS and Stat)	**CO1**	Students will be able to Design, develop and test programs written in 'C'
			CO2	Students will be able to easily design and create a good database and use various SQL operations.
			CO3	Students shall understand the power of excel spreadsheet in computing summarystatistics.
SEMESTER III				
S.Y.B.B.A (C.A.)	301	Relational Database Management System	**CO1**	The students will be able to understand basic concepts and the applications of database systems
			CO2	The students will able to Understand and apply database normalization principles.
			CO3	The students will be able to understand principles of database transaction management, database recovery, security.
			CO4	The students will be able to understand Functions, Cursors, Triggers and packages.
			CO5	The student will get brief knowledge about SQL Fundamentals.
			CO6	The students will be able to understand Functions, Cursors, Triggers and packages.
			CO7	The students will be able to handle with different Data Base languages
S.Y.B.B.A (C.A.)	301 New	Digital Marketing	**CO1**	The students will be able to give knowledge about using digital marketing in business.
			CO2	The students will be able to make SWOT analysis, SEO optimization and use of various digital marketing tools.
S.Y.B.B.A (C.A.)	302	Data Structure Using C	**CO1**	Students will be able to apply concepts of data structure in various domains like DBMS, etc.
			CO2	Students will be able to handle various operations like creation, insertion, deletion,

				searching, etc. on various data structure.
			CO3	Students will be able to use various data structures like stack, queue, linked list, etc in practically.
			CO4	Students will be able to apply appropriate data structure to specified problem definition.
S.Y.B.B.A (C.A.)	302 New	Data Structure	**CO1**	Students will be able to understand the concepts of ADTs.
			CO2	Students will be able to learn linear data structures – lists, stacks, and queues.
			CO3	Students will be able to understand sorting, searching and hashing algorithms.
			CO4	Students will be able to apply Tree andGraph structures.
S.Y.B.B.A (C.A.)	303	Introduction to Operating System	**CO1**	Students will be able to understand the concepts of operating system and its working.
			CO2	Students will be able to understand various operating systems features
			CO3	Students will be able to understand basic architectural components involved in operating system design
			CO4	Students will be able to understand device and resource management techniques for timesharing and distributed system
			CO5	Students will be able to understand the concept of mutual exclusion, deadlock detection of distributed operating system
S.Y.B.B.A (C.A.)	303 New	Software Engineering	**CO1**	Students will be able to understand System concepts.
			CO2	Students will be able to understand Software Engineering concepts.
			CO3	Students will be able to understand the applications of Software Engineering concepts and Design in Software
S.Y.B.B.A (C.A.)	304	BUSINESS MATHEMATICS	**CO1**	Students shall understand applications of matrices in business
			CO2	Students shall use L.P.P. and its applications in business
			CO3	Students shall understand the concept of Transportation problems & its applications in business world
			CO4	Students shall understand the concept of Profits and loss, loans and EMIs
S.Y.B.B.A (C.A.)	304 New (Option)	Angular - JS	**CO1**	The students will be able to understand Client Side MVC and SPA.
			CO2	The students will be able to explore

				AngularJS Component.
			CO3	The students will be able to develop an AngularJS Single Page Application.
			CO4	The students will be able to create and bind controllers with Javascript.
			CO5	The students will be able to apply filter in AngularJS application.
S.Y.B.B.A (C.A.)	304 New (Option)	PHP	**CO1**	The students will be able to understand how server-side programming works on the web.
			CO2	The students will be able to use PHP built-in functions and creating custom functions.
			CO3	The students will be able to understand POST and GET in form submission.
			CO4	The students will be able to understand howto receive and process form submission data.
			CO5	The students will be able to read and process data in a MySQL database.
S.Y.B.B.A (C.A.)	305	Software Engineering	**CO1**	The students will be able to use the techniques, skills, and modern engineering tools necessary for engineering practice.
			CO2	The students will be able to analyze, design, verifies, validate, implement, apply, and maintain software systems.
			CO3	The students will be able to design and conduct experiments, as well as to analyze and interpret data.
			CO4	The students will be able to identify, formulates, and solves engineering problems.
S.Y.B.B.A (C.A.)	305 New (Option)	Big Data	**CO1**	The students will be able to develop expert knowledge and analytical skills in currentand developing areas of analysis statistics, and machine learning
			CO2	The students will be able to identify, develop and apply detailed analytical, creative, problem solving skills.
			CO3	The students will be able to understand comprehensive platform for career development, innovation and further study.

S.Y.B.B.A (C.A.)	305 New (Option)	Block Chain	**CO1**	The students will be able to understand how blockchain systems (mainly Bitcoin and Ethereum) work.
			CO2	The students will be able to securely interact with them.
			CO3	The students will be able to design, build, and deploy smart contracts and distributed applications.
			CO4	The students will be able to integrate ideas from blockchain technology into their own projects
S.Y.B.B.A (C.A.)	306	Computer Laboratory and Practical Work (D.S + RDBMS)	**CO1**	Student will be able to solve the practical problem using Data Structure using C and Relational Database Management System
			CO2	Students will be able to implement and summarize concepts of searching and sorting techniques.
			CO3	Students will be able to write well-structured program using procedure oriented design principles.
			CO4	Students will be able to analyze run-time execution of application.
			CO5	Students will be able to implement the Stack ADT using array and linked list data structures.
S.Y.B.B.A (C.A.)	AECC Add-On Course	Basic Course in Environmental Awareness	**CO1**	Students will be able to provide an opportunities to acquire the knowledge,values, attitudes, commitment, and skills needed to protect and improve the environment.
			CO2	Students will be able to develop conscious towards a cleaner and better managed environment.
SEMESTER IV				
S.Y.B.B.A (C.A.)	401	Object Oriented Programming Using C++	**CO1**	Students will be able to understand features of object oriented programming.
			CO2	Students will be able to produce object-oriented software using C++
			CO3	Students will be able to apply the major object-oriented concepts in programming
			CO4	Students will be able to understand the

				advanced features of C++ such as stream I/O, Templates, Operator Overloading, etc.
S.Y.B.B.A (C.A.)	401 New	Networking	**CO1**	Students will be able to gain knowledge about Computer Networks concepts.
			CO2	Students will be able to know about working of networking models, addresses,transmission medias and connectivitydevices.
			CO3	Students will be able to acquire information about network security and cryptography.
S.Y.B.B.A (C.A.)	402	Programming in Visual Basic	**CO1**	Students will be able to understand the basics of visual basic and its implementation
			CO2	Students will be able to develop Graphical User Interface based on problem specified
			CO3	Students will be able to develop and debug application very easily
S.Y.B.B.A (C.A.)	402 New	Object Oriented Concepts Through CPP	**CO1**	Students will be able to acquire an understanding of basic object-oriented concepts and the issues involved in effective class design.
			CO2	Students will be able to enable students to write programs using C++ features like operator overloading, constructor and destructor, inheritance, polymorphism and exception handling.
S.Y.B.B.A (C.A.)	403	Computer Networking	**CO1**	Students will be able to identify the different components in a Communication Systemand their respective roles.
			CO2	Students will be able to describe the technical issues related to the local Area Networks.
			CO3	Students will be able to identify the common technologies available in establishing LAN infrastructure.
S.Y.B.B.A (C.A.)	403 New	Operating System	**CO1**	Students will be able to know the services provided by Operating System
			CO2	Students will be able to know the scheduling concept
			CO3	Students will be able to understand design issues related to memory management and various related algorithms.
			CO4	Students will be able to understand design issues related to File management andvarious related algorithms
S.Y.B.B.A (C.A.)	404	Enterprise Resource Planning and Management	**CO1**	Students will be able to understand ERP and learned about different technologies used.
S.Y.B.B.A (C.A.)	404 New	Advance PHP	**CO1**	Students will be able to know & understand concepts of internet programming.

	(Option)		**CO2**	Students will be able to understand how server-side programming works on the web.
			CO3	Students will be able to understanding How to use PHP Framework (Joomla / Druple)
S.Y.B.B.A (C.A.)	404 New (Option)	Node – JS	**CO1**	Students will be able to understand the JavaScript and technical concepts behind Node JS.
			CO2	Students will be able to structure a Node application in modules.
			CO3	Students will be able to understand and use the Event Emitter.
			CO4	Students will be able to understand Buffers, Streams, and Pipes.
			CO5	Students will be able to build a Web Server in Node and understand how it really works.
			CO6	Students will be able to connect to a SQL or Mongo database in Node.
S.Y.B.B.A (C.A.)	406	Computer Laboratory and Practical Work (VB + C++)	**CO1**	Student will be able to solve the practical problem using Object Oriented Programming Using C++ and Visual Basic
			CO2	Student will be able to construct the programs using bottom-up design approach
			CO3	Students will be able to debug analyze run-time execution of VB and C++ application
			CO4	Students will be able to implement class, function overloading, operating overloading, Polymorphism, templates, etc.
			CO5	Students will be able to use ActiveX controls to improve design and effectiveness of VB application.
			CO6	Students will be able to prepare report in Visual Basic
S.Y.B.B.A (C.A.)	AddOn	JQuery	**CO1**	Students will be able to understand the JavaScript language & the Document Object Model.
			CO2	Students will be able to detect and respond to user actions.
			CO3	Students will be able to Alter, show, hide and move objects on a web page.
SEMESTER V				
T.Y.B.B.A (C.A.)	501	Java Programming	**CO1**	Students will be able to understand programming language concepts, particularly Java and object-oriented concepts.
			CO2	Students will be able to write, debug, and document well-structured Java applications.
			CO3	Students will be able to implement Java classes from specifications and effectively create and use objects from predefined class

				libraries.
			CO4	Students will be able to understand the behavior of primitive data types, object references, and arrays.
			CO5	Students will be able to apply decision and iteration control structures to implement algorithms
T.Y.B.B.A (C.A.)	502	Web Technologies	**CO1**	Students will be able to write a well formed / valid XML document.
			CO2	Students will be able to write a server side java application called Servlet to catchupdate and delete operations on DBMS table.
			CO3	Students will be able to write a server side java application called Servlet to catch form data sent from client, process it and store it on database.
			CO4	Students will be able to write a server side java application called JSP to catch formdata sent from client and store it on database.
T.Y.B.B.A (C.A.)	503	Dot Net Programming	**CO1**	Students will be able to use features of Dot Net Framework along with Visual Basic.
			CO2	Students will be able to develop Graphical User Interface based on problem specified.
			CO3	Students will be able to develop and debug application very easily.
T.Y.B.B.A (C.A.)	504	Object Oriented Software Engineering	**CO1**	Students will be able to describe the three pillars of object-orientation methodologiesand explain the benefits of each.
			CO2	Students will be able to create use case documents that capture requirements for a software system.
			CO3	Students will be able to create class diagrams that model both the domain model and design model of a software system.
			CO4	Students will be able to design the interface between the classes and objects.
			CO5	Students will be able to create an interaction diagrams that models the dynamic aspects ofa software system.
			CO6	Students will be able to understand the facets of the Unified Process approach to designing and building a software system.
			CO7	Students will be able to describe how design patterns facilitate development and list several of the most popular patterns.
			CO8	Students will be able to design the Axioms and corollaries.

			CO9	Students will be able to build a model for the user interface (UI) of a software application
			CO10	Students will be able to measure the Level of User satisfaction and software quality assurance.
T.Y.B.B.A (C.A.)	505	Project work (Based on C++ & VB)	**CO1**	Student is able to prepare software requirements.
			CO2	Students can understand the user/client requirements.
			CO3	Students can design the software using various tools and functions.
			CO4	Students can able to design the framework of the particular topic.
			CO5	Students can prepare different types ofreports of the project.
			CO6	Students can prepare the documentation of the entire project.
T.Y.B.B.A (C.A.)	506	Lab Course (Java & Web tech)	**CO1**	Students will be able to setup up and use a webserver for testing and deploying web applications.
			CO2	Students will be able to learn to create simple static webpages using html tags.
			CO3	Students will be able to learn client side scripting using a scripting language.
			CO4	Students will be able to use DOM concepts for client side scripting.
			CO5	Students will be able to learn server side scripting using database connectivity and report generation.
			CO6	Students will be able to learn the concept of Java application
			CO7	Students will be able to use different swing concepts.
			CO8	Students will be able to learn how to connect front end with backend.
SEMESTER VI				
T.Y.B.B.A (C.A.)	601	Advanced Web Technologies	**CO1**	Students will be able to understand the Mark-up language technology such as XML Structure and tools.
			CO2	Students will be able to understand advanced web technologies such as AJAX.
			CO3	Students will be able to understand advanced web topic such as Web Services.
			CO4	Students will be able to develop a dynamic webpage by using JavaScript and HTML.
			CO5	Students will be able to write a valid XML document

T.Y.B.B.A (C.A.)	602	Advanced Java	**CO1**	The students will have the competence in the use of Java Programming language.
			CO2	The students will be able to develop small to medium sized application programs that demonstrate professionally acceptable coding.
T.Y.B.B.A (C.A.)	603	Recent Trends in IT	**CO1**	Students will be able to analyze the problems.
			CO2	Students will be able to learn how to analyze and create systems to accomplish tasks.
			CO3	Students will be able to evaluate rapidly evolving trends and to integrate knowledge from appropriate fields to make effective and ethical technology decisions.
T.Y.B.B.A (C.A.)	604	Software Testing	**CO1**	Students will understand various test processes and continuous quality improvement.
			CO2	Students will learn types of errors and fault models.
			CO3	Students will understand the methods of test generation from requirements.
			CO4	Students will understand Test adequacy assessment using: control flow, data flow,and program mutations.
			CO5	Students will be able to use of various test tools.
			CO6	Students will be able to use application of software testing techniques in commercial environments.
T.Y.B.B.A (C.A.)	605	Project work (Based on Java & .Net)	**CO1**	Student is able to prepare software requirements.
			CO2	Students can understand the user/client requirements.
			CO3	Students can design the software usingvarious tools and functions.
			CO4	Students can able to design the framework of the particular topic.
			CO5	Students can prepare different types of reports of the project.
			CO6	Students can prepare the documentation of the entire project.
T.Y.B.B.A (C.A.)	606	Lab Course (Advance Java & Advance Web tech)	**CO1**	Students will be able to study the different Java components.
			CO2	Students will be able to learn the different forms of java and php as applicable for effective presentation.
			CO3	Students will be able to study the major components of java and php their integrated

				effect.
			CO4	Students will be able to study the different formats and application packages to create and edit.
			CO5	Students will be able to learn the techniques of database connectivity using different software applications.
			CO6	Students will be able to learn the techniques of video capturing and conversion using different software applications

Name of the Programme: B. Sc. (Computer Science)

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
F.Y.B.Sc .(Computer Science)	CS - 101	Problem Solving Using Computer and 'C' Programming - I	**CO1**	Explore algorithmic approaches to problem solving.
			CO2	Develop modular programs using control structures and arrays in 'C'.
F.Y.B.Sc. .(Computer Science)	CS - 102	Database Management Systems	**CO1**	Solve real world problems using appropriate set, function, and relational models
			CO2	Design E-R Model for given requirements and convert the same into database tables.
			CO3	Use SQL.
F.Y.B.Sc. .(Computer Science)	CS - 103	Practical course on Problem Solving using Computer and 'C' programmingand Database Management Systems	**CO1**	On completion of this course, students will be able to .Devise pseudo codes and flowchart for computational problems.
			CO2	Write, debug and execute simple programs in 'C'.
			CO3	Create database tables in postgreSQL.
			CO3	Write and execute simple, nested queries.
SEMESTER II				
F.Y.B.Sc .(Computer Science)	CS - 201	Advanced 'C' Programming	**CO1**	The student will be able to Develop modular programs using control structures, pointers, arrays, strings and structures
			CO2	The student understands the importance Design and develop solutions to real world problems using C.
F.Y.B.Sc .(Computer Science)	CS - 202	Relational Database Management Systems	**CO1**	On completion of the course, student will be able to Design E-R Model for given requirements and convert the same into database tables.
			CO2	Use database techniques such as SQL & PL/SQL..
			CO3	Explain transaction Management in relational database System responsible for our performance in life.
			CO4	Use advanced database Programming concepts.
F.Y.B.Sc .(Computer	CS - 203	Practical Course on Advanced 'C'	**CO1**	On completion of this course, students will be able to :

Science)		Programming and Relational Database Management Systems		Write, debug and execute programs using advanced features in 'C'.
			CO2	To use SQL & PL/SQL
			CO3	To perform advanced database operations
SEMESTER III				
S.Y.B.Sc (Computer Science).	CS - 231	Data Structures and Algorithms –I	**CO1**	On completion of the course, student will be able to To use well-organized data structures in solving various problems..
			CO2	To differentiate the usage of various structures in problem solution
			CO3	Implementing algorithms to solve problems using appropriate data structures.
S.Y.B.Sc. (Computer Science).	CS - 232	Software Engineering	**CO1**	On completion of the course, student will be able to Compare and chose a process model for a software project development.
			CO2	Identify requirements analyze and prepare models.
			CO3	Prepare the SRS, Design document, Project plan of a given software system.
S.Y.B.Sc. (Computer Science).	CS - 233	Practical course on CS 231 (Data Structures and Algorithms I) and CS 232 (Software Engineering)	**CO1**	student will be able to To use well-organized data structures in solving various problems.
			CO2	Implementing algorithms to solve problems using appropriate data structures.
			CO3	Prepare detailed statement of problem for the selected mini project
			CO4	Identify suitable process model for the same
			CO5	Develop Software Requirement Specification for the project.
			CO6	Identify scenarios and develop UML Use case
			CO7	Other artifacts: Class Diagram, activity diagram, sequence diagram, component diagram and any other diagrams as applicable to the project.
SEMESTER IV				
S.Y.B.Sc. (Computer Science).	CS - 241	Data Structures and Algorithms - II	**CO1**	On completion of this course students will be able to Implementation of different data structures efficiently.

			CO2	The students will able to understand the Usage of well-organized data structures to handle large amount of data
			CO3	The students will be able to understand Usage of appropriate data structures for problem solving.
S.Y.B.Sc. (Computer Science).	CS - 242	Computer Networks-I	**CO1**	Have a good understanding of the OSI and TCP/IP Reference Models and in particular have a good knowledge of Layers.
			CO2	The learner understands the basic Understand the working of various protocols..
			CO3	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies.
S.Y.B.Sc. (Computer Science)	CS - 243	Practical course on CS 241(Data Structures and Algorithms II) and CS 242 (Computer Networks I)	**CO1**	The students will able to understand the codes should be uploaded on either the local server, Moodle, Github or any open source LMS.
			CO2	To understand the basic commands run on cmd. And find the information about the computer pursuing the protocol and different types of address which is required to make communication possible over the network.
			CO3	To understand & identify the class full addressing in IPV4.
SEMESTER V				
T.Y.B.Sc. (Computer Science)	CS - 351	Operating Systems – I	**CO1**	After completion of this course students will be able to understand the concept of Processes and Thread Scheduling by operating system
			CO2	Synchronization in process and threads by operating system
			CO3	Memory management by operating system using with the help of various schemes.
T.Y.B.Sc. (Computer Science)	CS - 352	Computer Networks - II	**CO1**	On completion of the course, student will be able to Student will understand the different protocols of Application layer..
			CO2	Develop understanding of technical aspect

				of Multimedia Systems
			CO3	Develop various Multimedia Systems applicable in real time
			CO4	Identify information security goals.
			CO5	Understand, compare and apply cryptographic techniques for data security.
T.Y.B.Sc. (Computer Science)	CS - 353	Web Technologies - I	**CO1**	Learners shall be able to understand basic concepts and Web Page
			CO2	On completion of the course, student will be able to Understand how to develop dynamic and interactive Web Page
T.Y.B.Sc. (Computer Science)	CS - 354	Foundations of Data Science	**CO1**	On completion of the course, student will be able to– Perform Exploratory Data Analysis
			CO2	Obtain, clean/process, and transform data
			CO3	Detect and diagnose common data issues, such as missing values, special values, outliers, inconsistencies, and localization
			CO4	Demonstrate proficiency with statistical analysis of data.
			CO5	Present results using data visualization techniques
			CO6	Prepare data for use with a variety of statistical methods and models and recognize how the quality of the data and the means of data collection may affect conclusions.
T.Y.B.Sc. (Computer Science)	CS - 355	Object Oriented Programming using Java - I	**CO1**	On completion of the course, student will be able to– Understand the concept of classes, object, packages and Collections.
			CO2	To develop GUI based application.
T.Y.B.Sc. (Computer Science)	CS - 356	Theoretical Computer Science	**CO1**	On completion of the course, student will be able to– Understand the use of automata during language design.
			CO2	Relate various automata and Languages
T.Y.B.Sc. (Computer Science)	CS - 357	Practical Course based on CS - 351	**CO1**	After completion of this course students will be able to understand the concept of Process synchronization
			CO2	Processes and Thread Scheduling by operating system
			CO3	Memory management by operating system using with the help of various schemes
T.Y.B.Sc. (Computer	CS - 358	Practical Course based on CS -	**CO1**	Understand how to develop dynamic and interactive Web Page.

Science)		353 and CS - 354	**CO2**	Prepare data for use with a variety of statistical methods and recognize how the quality of the data may affect conclusions.
			CO3	Perform exploratory data analysis.
T.Y.B.Sc. (Computer Science)	CS - 359	Practical Course based on CS - 355	**CO1**	Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs
			CO2	Read and make elementary modifications to Java programs that solve real-world problems.
			CO3	Validate input in a Java program.
T.Y.B.Sc. (Computer Science)	CS-3510	Python Programming	**CO1**	On completion of the course, student will be able to– Develop logic for problem solving
			CO2	Determine the methods to create and develop Python programs by utilizing the data .
			CO3	structures like lists, dictionaries, tuples and sets.
			CO4	To be familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc.
			CO5	To write python programs and develop a small application project.
T.Y.B.Sc. (Computer Science)	CS-3511	Blockchain Technology	**CO1**	On completion of the course, student will be able to– Learn the fundamentals of Blockchain Technology.
			CO2	Learn Blockchain programming
			CO3	Basic knowledge of Smart Contracts and how they function.
SEMESTER VI				
T.Y.B.Sc. (Computer Science)	CS - 361	Operating Systems-II	**CO1**	After completion of this course students will be able to understand the concept of Management of deadlocks and File System by operating system
			CO2	Scheduling storage or disk for processes
			CO3	Distributed Operating System and its architecture and the extended features in mobile OS.
T.Y.B.Sc. (Computer	CS - 362	Software Testing	**CO1**	To understand various software testing methods and strategies.

Science)			**CO2**	To understand a variety of software metrics, and identify defects and managing those defects for improvement in quality forgiven software.
			CO3	To design test cases and test plans, review reports of testing for qualitative software.
			CO4	To understand latest testing methods used in the software industries
T.Y.B.Sc. (Computer Science)	CS - 363	Web Technologies - II	**CO1**	On completion of the course, student will be able to– Build dynamic website.
			CO2	Using MVC based framework easy to design and handling the errors in dynamic website
T.Y.B.Sc. (Computer Science)	CS - 364	Data Analytics	**CO1**	On completion of the course, student will be able to– Use appropriate models of analysis, assess the quality of input, and derive insight from results.
			CO2	Analyze data, choose relevant models and algorithms for respective applications
			CO3	Understand different data mining techniques like classification, prediction, clustering and association rule mining
			CO4	Apply modeling and data analysis techniques to the solution of real world business problems
T.Y.B.Sc. (Computer Science)	CS - 365	Object Oriented Programming using Java – II	**CO1**	On completion of the course, student will be able to– To access open database through Java programs using JDBC and develop the application
			CO2	Understand and Create dynamic web pages, using Servlets and JSP.
			CO3	Work with basics of framework to develop secure web applications.
T.Y.B.Sc. (Computer Science)	CS - 365	Object Oriented Programming using Java – II	**CO1**	On completion of the course, student will be able to– Access open database through Java programs using Java Data Base Connectivity (JDBC) and develop the application
			CO2	Understand and Create dynamic web pages, using Servlets and JSP.
			CO3	Work with basics of framework to develop secure web applications.
T.Y.B.Sc. (Computer	CS - 366	Compiler Construction	**CO1**	On completion of the course, student will be able to–

Science)				Understand the process of scanning and parsing of source code
			CO2	Learn the conversion code written in source language to machine language.
			CO3	Understand tools like LEX and YACC.
T.Y.B.Sc. (Computer Science)	CS - 367	Practical Course based on CS - 361	**CO1**	After completion of this course students will be able to understand the concept of Management of deadlocks by operating system
			CO2	File System management
			CO3	Disk space management and scheduling for processes
T.Y.B.Sc. (Computer Science)	CS - 368	Practical Course based on CS - 363 and CS - 364	**CO1**	Build dynamic website
			CO2	Using MVC based framework easy to design and handling the errors in dynamic website.
T.Y.B.Sc. (Computer Science)	CS - 369	Practical Course based on CS - 365	**CO1**	To Learn database Programming using Java
			CO2	Understand and Create dynamic web pages using Servlets and JSP.
			CO3	Work with basics of framework to develop secure web applications
T.Y.B.Sc. (Computer Science)	CS - 3610	Software Testing Tools	**CO1**	To understand various software testing methods and strategies
			CO2	To understand a variety of software metrics and identify defects and managing those defects for improvement in quality for given software.
			CO3	To design test cases and test plans, review reports of testing for qualitative software.
			CO4	To understand latest testing tools used in the software industries.
T.Y.B.Sc. (Computer Science)	CS - 3611	Project	**CO1**	To understand the use of technologies how it will be implemented while developing the project. And students must co-relate their knowledge and have confident to represent with well understanding facts.

Name of the Programme: M.Sc. (Computer Science)

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
M.Sc. I (Computer Science)	CSUT111	Paradigm of Programming Language.	**CO1**	To Prepare student to think about programming languages analytically: Separate syntax from semantics.
			CO2	Compare programming language designs.
			CO3	Understand their strengths and weaknesses.
			CO4	Learn new languages more quickly
			CO5	Understand basic language implementation techniques.
			CO6	Learn small programs in different programming Languages.
M.Sc. I (Computer Science)	CSUT112	Design and Analysis of Algorithm	**CO1**	To design the algorithms
			CO2	To select the appropriate algorithm by doing necessary analysis of algorithms.
			CO3	To learn basic Algorithm Analysis techniques and understand the use of asymptotic notation.
			CO4	Understand different design strategies.
			CO5	Understand the use of data structures in improving algorithm performance.
			CO6	Understand classical problem and solutions.
			CO7	Learn a variety of useful algorithms.
			CO8	Understand classification of problems.
			CO9	To provide foundation in algorithm design and analysis.
			CO10	To develop ability to understand and design algorithms in context of space and time complexity.
M.Sc. I (Computer Science)	CSUT113	Database Technologies	**CO1**	Provide an overview of the concept of NoSQL technology.
			CO2	Provide an insight to the different types of NoSQL databases

			CO3	Make the student capable of making a choice of what database technologies to use, based on their application needs.
M.Sc. I (Computer Science)	CSDT114A	Cloud Computing	**CO1**	To understand the principles and paradigm of Cloud Computing.
			CO2	To appreciate the role of Virtualization Technologies.
			CO3	Ability to design and deploy Cloud Infrastructure.
			CO4	Understand cloud security issues and solutions.
M.Sc. I (Computer Science)	CSDP114A	Cloud Computing Practical Assignments	**CO1**	To understand the principles and paradigm of Cloud Computing.
			CO2	To appreciate the role of Virtualization Technologies.
			CO3	Ability to design and deploy Cloud Infrastructure.
			CO4	Understand cloud security issues and solutions.
M.Sc. I (Computer Science)	CSDT114B	Artificial Intelligence	**CO1**	To learn various types of algorithms useful in Artificial Intelligence (AI).
			CO2	To convey the ideas in AI research and programming language related to emerging technology.
			CO3	To understand the numerous applications and huge possibilities in the field of AI that goes beyond the normal human imagination.
M.Sc. I (Computer Science)	CSDP114B	Artificial Intelligence Practical	**CO1**	To learn various types of algorithms useful in Artificial Intelligence (AI).
			CO2	To convey the ideas in AI research and programming language related to emerging technology.
			CO3	To understand the numerous applications and huge possibilities in the field of AI that goes beyond the normal human imagination.
M.Sc. I (Computer Science)	CSDT114C	Web Services	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between

				different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSDP114C	Web Services Practical Assignments	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSUP115	PPL and Database Technologies Practical	**CO1**	To Learn in SCALA PROGRAMS(Control Structures, Arrays, String, Classes and Objects, List, Map, Set)
			CO2	To learn creation of databases, collections, queries and aggregate framework in MongoDB of NoSQL.
			CO3	To learn creation of databases in graph model. Visualize the models after creation, Return properties of nodes, Return the nodes labels, Returnthe relationships with its properties and queries on it in Neo4j of NoSQL.
SEMESTER II				
M.Sc. I (Computer Science)	CSUT121	Advanced Operating System	**CO1**	Course teaches Advanced Operating Systems Concepts using Unix/Linux
			CO2	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO3	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO4	course provides an understanding of the functions of Operating Systems

			CO5	It also provides provide an insight into functional modules of Operating Systems.
			CO6	It discusses the concepts underlying in the design and implementation of Operating Systems.
M.Sc. I (Computer Science)	CSUT122	Mobile Technologies	**CO1**	To impart basic understanding of the wireless communication systems.
			CO2	To expose students to various aspects of mobile and ad-hoc networks.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
M.Sc. I (Computer Science)	CSUT123	Software Project Management	**CO1**	Software Metrics and Project Management covers skills that are required to ensure successful medium and large scale software projects.
			CO2	It examines Requirements Elicitation, Project Management, Verification &Validation and Management of Large Software Engineering Projects.
			CO3	Students learn to select and apply project management techniques for process modeling, planning, estimation, process metrics and risk management; perform software verification and validation using inspections, design and execution of system test cases.
M.Sc. I (Computer Science)	CSDT124A	Project Guidelines	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDP124A	Project Related Assignments	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDT124B	Human Computer Interaction	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user

				feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDP124B	Human Computer Interaction Practical Assignments	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Websites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDT124C	Soft Computing	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.
			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSDP124C	Soft Computing Practical Assignment	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.

			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSUP125	Practical on Advanced OS & Mobile Technologies	**CO1**	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO2	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
SEMESTER III				
M.Sc. II (Computer Science)	CSUT231	Software Architecture and Design Patterns	**CO1**	Recognize the characteristics of patterns that make it useful to solve real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to use specific frameworks as per applications need.
			CO4	To understand about design pattern.
			CO5	Design java application using design pattern techniques.
M.Sc. II (Computer Science)	CSUT232	Machine Learning	**CO1**	Recognize the characteristics of machine learning that make it useful to real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics..

			CO4	Design application using machine learning techniques.
M.Sc. II (Computer Science)	CSUT233	Web Frameworks	**CO1**	Students will be ready with the technology which is used widely in Industry as a part of full stack developer.
			CO2	Students will know the powerful way to develop the web application in Python
			CO3	Students will understand what really the asynchronous programming.
			CO4	Build and deploy robust Django Web App.
			CO5	Integrate with Restful web services.
M.Sc. II (Computer Science)	CSDT234A	Big Data Analytics	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDP234A	Big Data Analytics Practical	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDT234B	Web Analytics	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators

				for a given goal, identify data relating to the metrics and key performance indicators.
M.Sc. II (Computer Science)	CSDP234B	Web Analytics Practical	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators for a given goal; identify data relating to the metrics and key performance indicators
M.Sc. II (Computer Science)	CSDT234C	Project	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer Science)	CSDT234C	Project Related Assignments	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer	CSUP235	Practical on CSUT231,	**CO1**	Able to use specific frameworks as per applications need. .

Science)		CSUT232 and CSUT233	**CO2**	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics.
SEMESTER IV				
M.Sc. II (Computer Science)	CSUT241	Industrial Training /Institutional project	**CO1**	Each student must individually complete minimum 5 months full time Industrial training / Institutional project in the 4th semester.
			CO2	To bridge the gap between academic's and industry.
			CO3	To get the exposure of real time working environment.
			CO4	This is chance for students to work on their own choice project, something that interests and inspire to them to make them comfortable for industry point of view

Name of the Programme: M.Sc. (ComputerApplication)

Name of the Class	Course Code	Course Title	Course Outcomes	
SEMESTER I				
M.Sc. I (Computer Application)	CACCTP-1	Web technology computer	**CO1**	
			CO2	
			CO3	
			CO4	
			CO5	
			CO6	
M.Sc. I (Computer Application)	CACCTP-2	Advance Databases	**CO1**	
			CO2	
			CO3	
			CO4	
			CO5	
			CO6	
			CO7	
			CO8	
			CO9	
			CO10	
M.Sc. I (Computer Application)	CACCTP-3	Design and Analysis of Algorithm	**CO1**	
			CO2	

			CO3	
M.Sc. I (Computer Application)	CACBOTP-1A	Object oriented programming with C++	**CO1**	
			CO2	
			CO3	
			CO4	
M.Sc. I (Computer Application)	CACBOPP-1A	Object oriented programming with C++ Laboratory	**CO1**	
			CO2	
			CO3	
			CO4	
M.Sc. I (Computer Application)	CACCPP-1	Web technology laboratory	**CO1**	
			CO2	
			CO3	
M.Sc. I (Computer Application)	CACBOTP-1B	ASP.NET	**CO1**	
			CO2	
			CO3	
M.Sc. I (Computer Application)	CSDT114C	Web Services	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between

				different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSDP114C	Web Services Practical Assignments	**CO1**	To understand the details of web services technologies like WSDL,UDDI, SOAP
			CO2	To learn how to implement and deploy web service client and server
			CO3	To explore interoperability between different frameworks
			CO4	To understand the concept of RESTful system.
			CO5	Web Services Practical Assignments
M.Sc. I (Computer Science)	CSUP115	PPL and Database Technologies Practical	**CO1**	To Learn in SCALA PROGRAMS(Control Structures, Arrays, String, Classes and Objects, List, Map, Set)
			CO2	To learn creation of databases, collections, queries and aggregate framework in MongoDB of NoSQL.
			CO3	To learn creation of databases in graph model. Visualize the models after creation, Return properties of nodes, Return the nodes labels, Returnthe relationships with its properties and queries on it in Neo4j of NoSQL.
SEMESTER II				
M.Sc. I (Computer Science)	CSUT121	Advanced Operating System	**CO1**	Course teaches Advanced Operating Systems Concepts using Unix/Linux
			CO2	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO3	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO4	course provides an understanding of the functions of Operating Systems

			CO5	It also provides provide an insight into functional modules of Operating Systems.
			CO6	It discusses the concepts underlying in the design and implementation of Operating Systems.
M.Sc. I (Computer Science)	CSUT122	Mobile Technologies	**CO1**	To impart basic understanding of the wireless communication systems.
			CO2	To expose students to various aspects of mobile and ad-hoc networks.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
M.Sc. I (Computer Science)	CSUT123	Software Project Management	**CO1**	Software Metrics and Project Management covers skills that are required to ensure successful medium and large scale software projects.
			CO2	It examines Requirements Elicitation, Project Management, Verification &Validation and Management of Large Software Engineering Projects.
			CO3	Students learn to select and apply project management techniques for process modeling, planning, estimation, process metrics and risk management; perform software verification and validation using inspections, design and execution of system test cases.
M.Sc. I (Computer Science)	CSDT124A	Project Guidelines	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDP124A	Project Related Assignments	**CO1**	To understand Analysis and Design implementation & testing of real live project
			CO2	To make technically booster.
M.Sc. I (Computer Science)	CSDT124B	Human Computer Interaction	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user

				feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDP124B	Human Computer Interaction Practical Assignments	**CO1**	Design effective dialog for HCI.
			CO2	Design effective HCI for individuals and persons with disabilities.
			CO3	Assess the importance of user feedback.
			CO4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Websites.
			CO5	Develop meaningful user interface.
M.Sc. I (Computer Science)	CSDT124C	Soft Computing	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.
			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSDP124C	Soft Computing Practical Assignment	**CO1**	To introduce the ideas of soft computational techniques based on human experience.
			CO2	To generate an ability to design, analyze and perform experiments on real life problems using various Neural Learning Algorithms. To conceptualize fuzzy logic and its implementation for various real world applications.
			CO3	To apply the process of approximate reasoning using Neuron Fuzzy Modeling.

			CO4	To provide the mathematical background to carry out optimization using genetic algorithms.
M.Sc. I (Computer Science)	CSUP125	Practical on Advanced OS & Mobile Technologies	**CO1**	Course strikes a delicate balance between theory and practical applications In fact, most Units start with the theory and then switches focus on how the concepts are implemented in a C program.
			CO2	Course describes the programming interface to the Unix/Linux system - the system call interface. It is intended for anyone writing C programs that run under Unix/Linux.
			CO3	Understand the issues relating to Wireless applications.
			CO4	Understand the Mobile security.
SEMESTER III				
M.Sc. II (Computer Science)	CSUT231	Software Architecture and Design Patterns	**CO1**	Recognize the characteristics of patterns that make it useful to solve real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to use specific frameworks as per applications need.
			CO4	To understand about design pattern.
			CO5	Design java application using design pattern techniques.
M.Sc. II (Computer Science)	CSUT232	Machine Learning	**CO1**	Recognize the characteristics of machine learning that make it useful to real-world problems.
			CO2	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics..

			CO4	Design application using machine learning techniques.
M.Sc. II (Computer Science)	CSUT233	Web Frameworks	**CO1**	Students will be ready with the technology which is used widely in Industry as a part of full stack developer.
			CO2	Students will know the powerful way to develop the web application in Python
			CO3	Students will understand what really the asynchronous programming.
			CO4	Build and deploy robust Django Web App.
			CO5	Integrate with Restful web services.
M.Sc. II (Computer Science)	CSDT234A	Big Data Analytics	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDP234A	Big Data Analytics Practical	**CO1**	Recognize the characteristics, applications of big data that make it useful to real-world problems. .
			CO2	Process available data using big data tools hadoop file system and predict outcomes to solve given problem.
			CO3	Study & Design various case studies using big data tools/commands and analysis it
M.Sc. II (Computer Science)	CSDT234B	Web Analytics	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators

				for a given goal, identify data relating to the metrics and key performance indicators.
M.Sc. II (Computer Science)	CSDP234B	Web Analytics Practical	**CO1**	Understand social media, web and social media analytics, and their potential impact.
			CO2	Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
			CO3	Use various data sources and collect data relating to the metrics and key performance indicators.
			CO4	Identify key performance indicators for a given goal; identify data relating to the metrics and key performance indicators
M.Sc. II (Computer Science)	CSDT234C	Project	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer Science)	CSDT234C	Project Related Assignments	**CO1**	Students should work in a team of minimum 2 and maximum 3 students.
			CO2	Choose a project topic without any restriction on technology or domain to make them familiar with chosen technology.
			CO3	Group will work independently throughout the project work including: problem identification, information searching, literature study, design and analysis, implementation, testing, and the final reporting.
M.Sc. II (Computer	CSUP235	Practical on CSUT231,	**CO1**	Able to use specific frameworks as per applications need. .

Science)		CSUT232 and CSUT233	**CO2**	Process available data using python libraries and predict outcomes using Machine Learning algorithms to solve given problem.
			CO3	Able to estimate Machine Learning models efficiency using suitable metrics.
SEMESTER IV				
M.Sc. II (Computer Science)	CSUT241	Industrial Training /Institutional project	**CO1**	Each student must individually complete minimum 5 months full time Industrial training / Institutional project in the 4th semester.
			CO2	To bridge the gap between academic's and industry.
			CO3	To get the exposure of real time working environment.
			CO4	This is chance for students to work on their own choice project, something that interests and inspire to them to make them comfortable for industry point of view

Table of Contents

09	BBA-IB	
10	M.Sc. Computer Application	

UNDERGRADUATE PROGRAMME OUTCOMES

PO01	**Environment and Sustainability**: Understand the issues of environmental contexts and sustainable development.
PO2	**Skills:** Ability to use modern instrumentation and laboratory techniques to design and perform experiments.
PO3	**Critical thinking:** Ability to engage in reflective and independent thinking by understanding the concepts in every area of the subject.
PO4	**Problem solving:** Capability to deduce a problem associated with subject and applies the class room learning into practice to offer a solution for the same.
PO5	**Sense of inquiry:** Capability for asking relevant/appropriate questions relating to the issues and problems and planning, executing and reporting the results of a theoretical or experimental investigation.
PO6	**Communication Skills:** Ability to share thoughts, ideas and applied skills of communication in its various perspectives like written communication, oral communication etc.
PO7	**Lifelong learners:** Capable of self-paced and self-directed learning aimed at personal development and for improving knowledge/skill development and reskilling in all areas of respective subjects.

PO8	**Digitally literate:** Adequate training in the application of digital knowledge in higher education and workplace.
PO9	**Ethics:** Recognize different value systems including one's own, understand the moral dimensions of one's decisions, and accept responsibility for them.
P10	**Disciplinary Knowledge:** Good knowledge and understanding of major concepts, theoretical principles and experimental findings of the subject and its different subfields.

POSTGRADUATE PROGRAMME OUTCOMES

PO1	**Disciplinary Knowledge:** Demonstrate comprehensive knowledge and understanding of one or more disciplines that form a part of a programme of study.
PO2	**Critical Thinking:** Apply analytic thought to a body of knowledge, analyses and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence, identify relevant assumptions or implications, formulate coherent arguments, critically evaluate practices, policies and theories by following scientific approach to knowledge development.
PO3	**Analytical Reasoning:** Demonstrate the ability to evaluate the reliability and relevance of evidence, identify logical flaws and holes in the arguments of others, analyses and synthesize data from a variety of sources, draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

PO4	**Problem Solving:** Demonstrate capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge and apply one's learning to real life situations.
PO5	**Research-related Skills:** Demonstrate a sense of inquiry and capability for asking relevant/appropriate questions, problematizing, synthesising and articulating, demonstrate the ability to recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships, plan, execute and report the results of an experiment or investigation.
PO6	**Scientific Reasoning using Quantitative/Qualitative Data:** Demonstrate the ability to understand cause-and-effect relationships, define problems, apply scientific principles, analyse, interpret and draw conclusions from quantitative/qualitative data, and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.
PO7	**Communication Skills: Ability to share thoughts and ideas effectively in writing and orally, communicate with others using appropriate media, confidently share one's views and express herself/himself, demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.**
PO8	**Collaboration/Cooperation/Team work: Demonstrate ability to work effectively and respectfully with diverse teams, facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.**

PO9	**Information/Digital Literacy: Demonstrate capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources and to use appropriate software for analysis of data.**
PO10	**Self-Directed Learning: Demonstrate ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.**
PO11	**Moral and Ethical Awareness/Reasoning: Demonstrate the ability to embrace moral/ethical values in conducting one's life, formulate a** **position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Demonstrate the ability to** **identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights, appreciate environmental and sustainability issues, and adopt objective, unbiased and truthful actions in all aspects of work.**

Name of the Programme: B.Com

PSO 1	By the end of the B.com degree course, the students will have gained knowledge, skills, and attitudes.

PSO 2	They can become a Manager, Accountant, Management Accountant, cost Accountant, bank manager, auditor, company secretary, teacher, professor, stock agents, government employment, and so on based on the quality of their preparation.
PSO 3	Students will demonstrate their abilities in a variety of professional exams such as the C.A., C.S., CMA, MPSC, and UPSC. As well as other forms of coercion.
PSO 4	In the area of communication, problem solving, and decision-making, the students will learn and utilize these concepts, skills, and abilities in their day-to-day business activities.
PSO 5	Students will obtain an extensive body of knowledge on accounting, auditing, taxation, management, communications, and computers.
PSO 6	In addition to having a firm grasp of financial accounting and tax accounting, students also acquire valuable working experience in the following areas: auditor, audit assistant, tax consultant, and computer operator. In addition to financial support, which includes several other support services.
PSO 7	Students will learn advanced accounting skills that will help them as they seek new career opportunities in business.
PSO 8	Students will be able to obtain their advanced studies, research in finance and commerce, and participate in academia.

Name of the Programme: M.Com.

PSO 1	This curriculum aims to prepare students for the modern fields of financial and accounting. Some careers include accounting, marketing and publicity, banking, business administration, management consulting, business development, business analysis, fund management, international business and business analyses, policy creation, portfolio management in the commercial and governmental sectors.
PSO 2	Identify knowledge-based accounting principles as well as the most up-to-date application-oriented corporate accounting processes and procedures.
PSO 3	Develop decision-making skills via costing strategies and using management accounting principles practically.
PSO 4	It makes a student more prepared to face the most recent economic issues, fashion trends, and market conditions. It also assists in comprehending commerce, trade, and business, as well as providing information.

Name of the Programme: B.B.A.

PSO 1	Students shall develop knowledge and understanding of importance and functions of Marketing and its theories
PSO 2	Students shall understand Key features of Sales Promotion activities
PSO 3	Students shall develop knowledge and understanding of importance and functions of advertising
PSO 4	Students shall understand Key features of Sales Promotion
PSO 5	Students shall understand Marketing strategies and Market segmentation

PSO 6	Students shall understand and prepared a project report on various topics of Marketing
PSO 7	Students learnt the interpretation and analysis of financial statements effectively.
PSO 8	The student got well acquainted with current financial practices
PSO 9	Students became intensive users of financial statements
PSO 10	Students got the capability to make long-term financing decisions.
PSO 11	Students got aware of various financial services and financial markets in India.
PSO 12	The student understood and prepared a project report on various topics of finance.
PSO 13	Student got aware of Recruitment and Selection process ,different types of training methods, development and evaluation system in HR.
PSO 14	Student learned how to prepare Personnel records reports and audit.
PSO 15	Students got acquainted to Strategic HRM and New trends in HRM.
PSO 16	Student got aware of Working Conditions & Welfare facilities at workplace.
PSO 17	Students learned different Employee Grievance, Discipline and disputes with machinery of settlement of such disputes.

PSO 18	Students are aware of different Labour Laws in India.

Name of the Programme: BBA-CA

PSO 1	After successfully completing the BBA-CA program Students will be able to: Understand the fundamental concepts of Computers, Business environment and IT Applications in Business.
PSO 2	Understand & analyze technical data to reach actionable conclusions, including technological solutions to the business
PSO 3	Learn technologies & IT languages, so the business problems could be addressed.
PSO 4	Develop competent technical writing skills so as to enable the graduate to communicate business ideas to senior management and general public.
PSO 5	Identify and sharpen their IT/ programming skills.
PSO 6	Enhance necessary technical as well as basic managerial and financial procedures to analyze and solve real world problems within their work domain.

Name of the Programme: B.Sc. (Computer Science)

PSO 1	B.Sc. (Computer Science) is systematically designed three year course that prepares the student for a career in Software Industry.
PSO 2	The Syllabus of computer Science subject along with that of the three allied subjects (Mathamatics, Electronics & Statistics) forms the required basics for pursuing higher studies in computer science.
PSO 3	The syllabus also developed requisite professional skills and problem solving abilities for pursuing the career in Software Industy.
PSO 4	To build the necessary skill set and analytical abilities for developing computer based solution for real life problems.

PSO 5	To imbibe quality software development practices.
PSO 6	It creates awareness about process and product standards.
PSO 7	It prepares necessary knowledge base for research and development in computer science.
PSO 8	It develops skill set for solving computational problems.

Name of the Programme: M.Sc. (Computer Science)

PSO 1	M.Sc. (Computer Science) credit base system will bring a qualitative change in the students.
PSO 2	It offers a more enriched learning experience.
PSO 3	It aims to provide technology- oriented students with the knowledge and ability to develop creative solutions.
PSO 4	To better understand the effects of future developments of computer systems and technology or people and society.
PSO 5	It is about developing skills to learn new technology, grasping the concepts and issues behind its use and the use of computers.

Name of the Programme: B.B.A.IB

PSO 1	Students got the capability to make long-term financing decisions.
PSO 2	Students got aware of various financial services and financial markets in India.
PSO 3	The student understood and prepared a project report on various topics of finance.
PSO 4	Student got aware of Recruitment and Selection process ,different types of training methods, development and evaluation system in HR.
PSO 5	Student learned how to prepare Personnel records reports and audit.

PSO 6	Students got acquainted to Strategic HRM and New trends in HRM.
PSO 7	Student got aware of Working Conditions & Welfare facilities at workplace.
PSO 8	Students learned different Employee Grievance, Discipline and disputes with machinery of settlement of such disputes.
PSO 9	Students are aware of different Labour Laws in India.

Name of the Programme: M.Sc. (Computer Application)

PSO 1	To better understand the effects of future developments of computer systems and technology or people and society.
PSO 2	It is about developing skills to learn new technology, grasping the concepts and issues behind its use and the use of computers.
PSO 3	M.Sc. (Computer Application) credit base system will bring a qualitative change in the students.
PSO 4	It offers a more enriched learning experience.
PSO 5	It aims to provide technology- oriented students with the knowledge and ability to develop creative solutions.