



R.V. Educational Institutions  
**Sivananda Sarma Memorial R.V. College**  
 UG & PG Programmes  
 Affiliated to Bengaluru City University  
 Accredited by NAAC with 'A' Grade  
 Ranked among top 5 Colleges in India  
 (India Today - MDRA Survey 2018, 2019, 2020 & 2021)



## PROGRAM OUTCOMES, PROGRAM SPECIFIC OUTCOMES, COURSE OUTCOMES

### BACHELOR OF COMMERCE (BCOM)

Program Outcome	The students will be ready for employment in functional areas like accounting, taxation, banking, insurance and corporate law. An attitude for working effectively and efficiently in a business environment. Learners will gain knowledge of various disciplines of commerce, business, accounting, economics, and finance, auditing and marketing.
Program Specific Outcome	Students also acquire skills to work as tax consultant, audit assistant and other financial supporting services. Students have choices to pursue professional courses such as CA, M.COM, MBA, CMA, ICWA, CS, etc Students are able to play roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.
<b>COURSE: BCOM</b>	<b>OUTCOMES</b>
Financial accounting	On successful completion of this course the student are enabled with the Knowledge in the practical applications of accounting, learn principles and concepts of Accountancy, basic concepts of Partnership Accounting, company accounts etc.
Business statistics and mathematics	students acquire new skills on the application of statistical tools and techniques in Business decision-making, Popular Quantitative Tools used in Business, practical exposure on calculation of measures of average, correlation and regression
International trade and Finance	It enable the students to understand the theories of Foreign trade in a wide aspects, idea regarding Balance of trade and Payment
Financial management	awareness about capital structure and theories of capital structure, cost of capital in wide aspects, dividend policies and various dividend models, working capital management
Indian financial institutions and markets	this course is to help students to understand the conceptual framework of Indian Financial Institutions and markets and their operations.
Corporate structure and Administration	this course is to help students to understand the conceptual framework of Indian financial Institutions and markets and their operations.
Corporate accounting	this subject enable the students to have a comprehensive awareness about the provisions of the Company's Act and Corporate Accounts.
Stock and commodity markets	provide students with a conceptual framework of stock markets and Commodity Markets, functionaries in these markets and their mode of trading.

International Financial Reporting Standards (IFRS)	subject enable the students to understand the need and method of presentation of financial statements in accordance with International Financial Reporting Standards.
Income Tax	This subject exposes the students to the various provisions of Income Tax Act 1961 relating to computation of Income of individuals.

Entrepreneurship development	Enable students to understand project formulation, Entrepreneurship development, awareness on various Entrepreneurship Development Programme, EDP schemes, knowledge of entrepreneurial skills and to make the students understand the approaches to attain the goals of the business
Modern marketing	Gain idea about marketing and its functions, consumer behavior, product and its classifications, pricing policies
Auditing	To develop an understanding of audit concept

## PROGRAM OUTCOMES, PROGRAM SPECIFIC OUTCOMES, COURSE OUTCOMES

### BACHELOR OF Business Administration(BBA)

Program Outcome	The students will be ready for employment in functional areas like Administration, finance, marketing, Human Resource and Research. An attitude for working effectively and efficiently in a business environment. Learners will gain knowledge of various disciplines of management, banking, production management, taxation, and finance and marketing.
Program Specific Outcome	Students also acquire skills to work as Finance Manager, Business Administration Researcher, H R manager, Business Consultant, Information System Manager and Marketing Manager. Students have choices to pursue professional courses such as MBA, CA, CS Hotel Management, Event Management etc Students are able to play roles of managers, entrepreneur, consultant which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.
<b>COURSE: BBA</b>	<b>OUTCOMES</b>
Principles of Management	On successful completion of this course the student will be familiarised with the concept of management. Students will be learning the basics of management along with the concepts like planning, decision making, directing, controlling. Corporate social responsibility and ethics are the extended concepts under this discipline that enhance the abilities of students.
Corporate Administration	students acquire new skills on the existing company law and administration. Students get to learn the facets like formation of company, administration, meetings and winding up of company.
Production and Operations Management	It enable the students to understand the concepts like basics of production and management, deciding the plant layout, quality assurance on produced goods and services and Effective waste management.
Organisational Behaviour	It enable the students to learn the basics of individual behavior and group behavior and also to understand the organizational dynamics.

Marketing management	this course is to help students to get familiarised with marketing, present trends in marketing and application of marketing strategies.
Business Research Methods	The objective of this discipline is to create an awareness of the Process of Research, the tools and techniques of research and generation of reports.
Human Resources Management	this subject enable the students to have comprehensive knowledge pertaining to principles of HRM, recruitment and selection process, effective training schemes to enhance the performance, compensation management and development of skills related aspects of

	employees.
Income Tax	It emphasizes on the exposure to the various provision of Income Tax Act relating to computation of Income individual assesses only.
Entrepreneurial Development	subject enable the students to understand the basic concepts of entrepreneurship and prepare business plan to start a small industry.
Investment Management	It enables the students to develop skills in analyzing various types of securities and also to develop necessary skills in students to design and revise a portfolio of securities.

### Department of Computer Applications (BCA)

#### 2.6.1 Program outcomes, Program Specific outcomes and Course outcomes

##### **Program Outcome**

- 1) To identify and review the problem, thereby in analysing to arrive at substantiated solutions by applying the basic principles in core areas of computer science.
- 2) To demonstrate the knowledge in managing a project and apply the same in one's own work as a member and as a leader of a team to manage project in multidisciplinary areas.
- 3) To function effectively as an individual (or) as a leader in diverse teams in multidisciplinary settings.
- 4) To recognize the need for and have the preparation and ability to engage and enhance the skills onto the next level of computing.

##### **Program Specific Outcome**

- 1) Acquiring necessary technical, scientific as well as management, financial procedures to analyse and solve real world problems within their work domain.
- 2) Applying the technical and soft skills to excel business and communication skill effectively in both verbal and non - verbal form.
- 3) Enabling and equipping the students with technological skills as per the industrial expectation.

**Course Outcome**

<b>Subject</b>	<b>Course Outcome</b>
<b>BCA103T</b> Problem Solving Techniques using C	<ul style="list-style-type: none"><li>• Basic Programming Skills – Algorithms &amp; Flowcharts, Structure of C programming, C Tokens, Input and Output functions are covered.</li><li>• Control Structures and Functions are covered.</li><li>• Arrays, Strings and Storage classes are taught.</li><li>• Structures, User defined datatypes, Pointers and memory allocation functions are covered.</li><li>• Files- Operations on files, Command line arguments, Preprocessor directives, Macros and User defined header files are covered.</li></ul>
<b>BCA104T</b> Digital Electronics	<ul style="list-style-type: none"><li>• Network Theorems and AC Fundamentals are covered.</li><li>• Semi Conductor devices, Diode Characteristics, Logic Families are being taught.</li><li>• Number Systems, Conversion of Number Systems, Binary Code, Boolean Algebra, Simplification of Boolean expressions using Boolean laws and K-maps, Conversion of Boolean expressions are covered.</li></ul>
	<ul style="list-style-type: none"><li>• Logic Gates, Construction of Logic Circuits, Pin Diagram of IC's are being taught.</li><li>• Sequential Circuits, Flipflops, Registers are covered.</li></ul>
<b>BCA105T</b> Discrete Mathematics	<ul style="list-style-type: none"><li>• Knowledge about Sets, Relations, Functions and logic connectives are being taught.</li><li>• Concepts of Matrix, Solutions of linear equations are covered.</li><li>• Familiarizing with Logarithms, Permutations and Combinations.</li><li>• Groups and Vectors are being taught.</li><li>• Understanding thoroughly about analytical geometry in two dimensions.</li></ul>
<b>BCA103P</b> C Programming Lab	<ul style="list-style-type: none"><li>• To develop the skills of writing algorithms and flow charts of the programs.</li><li>• C Programs on control structures, input and output functions are taught.</li><li>• C Programs on functions, arrays, String handling are covered.</li><li>• C Programs on Structures and Pointers are explained.</li><li>• C Programs on File Handling, Command Line arguments and Macros are taught.</li></ul>
<b>BCA104P</b> Digital Electronics Lab	<ul style="list-style-type: none"><li>• Programs on Logic Gates with respective IC's are designed.</li><li>• Universal Gates are designed.</li><li>• Adders and Subtractors are designed using logic gates.</li><li>• Various types of flipflops are designed.</li><li>• Designing with Shift registers using flipflops are covered.</li><li>• Designing of Odd and Even Parity checker generator is covered.</li></ul>

<b>Foundation Course</b> Environment Studies	<ul style="list-style-type: none"> <li>• Multidisciplinary Nature of Environment Studies, Concept of Sustainability and its development is being taught.</li> <li>• About Ecosystems, Case Studies on Ecosystems, Natural resources are covered.</li> <li>• Biodiversity levels, Threats to biodiversity, Ecosystem and bio diversity services are covered.</li> <li>• Environmental Pollution, Environmental Policies &amp; Practices, Case Studies on pollution are covered.</li> <li>• Environmental Movements, Ethics, Communication and Public awareness are being taught with corresponding filed work.</li> </ul>
<b>BCA203T</b> Data Structures	<ul style="list-style-type: none"> <li>• Data Structures Operations, Types, Complexity of algorithms, Asymptotic Notations, String Processing, Pattern Matching algorithms are being taught.</li> <li>• Representation of arrays, sorting , searching algorithms are covered.</li> <li>• Linked list operations, Types of linked list are being taught.</li> <li>• Stack, Queue Operations, Evaluation of arithmetic expressions using polish notation and various applications of stack &amp; queue are covered.</li> <li>• Representation of Graphs, Trees, Operations on trees, Binary Search tree and its operations are covered.</li> </ul>
<b>BCA204T</b> Database Management	<ul style="list-style-type: none"> <li>• Introduction to Database, DBMS, DBMS architecture, Database languages, interfaces, types of DBMS are covered.</li> </ul>
System	<ul style="list-style-type: none"> <li>• ER models. Schema constructs, Primary File organization, Operations on files, hashing techniques are being taught.</li> <li>• Normalization for relational database are completely covered. Relational Datamodel and relational algebra re taught.</li> <li>• SQL &amp; PLSQL are being taught.</li> <li>• Transaction Processing, Transaction Support in SQL, Locking techniques for concurrency control are covered.</li> </ul>
<b>BCA205T</b> Numerical and Statistical Methods	<ul style="list-style-type: none"> <li>• Floating Point representation and errors are being taught. Roots of Equations using Bisection method, Newton’s method and secant method are solved.</li> <li>• Interpolation and Numerical differentiation are covered. Numerical integration using trapezoidal, Simpson’s rule are being taught.</li> <li>• Systems of linear equations using Gaussian Elimination and back substitution are solved. Iterative methods are solved. Eigen Values and Eigen Vectors are covered. Differential equations using Taylor’s series, Rungekutta I, II &amp; IV order methods are covered.</li> <li>• Statistics &amp; Probability, Bayes Theorem are completely covered.</li> <li>• Familiarize with Random variables, Probability distribution, Binomial distribution- Applications &amp; Problems are covered.</li> </ul>

<b>BCA203P</b> Data Structures Lab	<ul style="list-style-type: none"> <li>• Programs on String Handling in C are covered.</li> <li>• Programs on different sorting &amp; searching techniques in C are covered.</li> <li>• Linked list operations are being taught in C.</li> <li>• Applications of stack are being taught in C.</li> <li>• Programs on Queue in C are covered.</li> <li>• Conversion of arithmetic expressions is taught using C.</li> <li>• Creation &amp; traversal of Binary Search tree in C are being taught.</li> </ul>
<b>BCA 204P</b> DBMS Lab	<ul style="list-style-type: none"> <li>• Creation of RDBMS application programs using Oracle 10G in covering <ul style="list-style-type: none"> <li>a) DDL, DML, DCL commands.</li> <li>b) Implementing arithmetic &amp; data commands.</li> <li>c) Implementing Primary Key &amp; Foreign Key Constraints.</li> <li>d) Implementing Join operations.</li> </ul> </li> <li>• Creation of simple PLSQL programs</li> </ul>
<b>Foundation Course</b> Constitution of India and Human Rights	<ul style="list-style-type: none"> <li>• Features of the Constitution, preamble, Fundamental Rights and Fundamental Duties, Directive Principles of State Policy are covered.</li> <li>• Powers and Functions of Union Parliament and State Legislature, President, Prime minister and Council of ministers, State Governor, Chief Minister and Council of Ministers, the supreme court and High court.</li> <li>• Concept and Development of Human Rights, U.N. and Human Rights, Human Rights groups are being taught.</li> <li>• Human Rights in India are covered.</li> </ul>
<b>BCA303T</b>	<ul style="list-style-type: none"> <li>• Object Oriented Programming concepts are covered in detail.</li> </ul>
Object Oriented Programming using C++	<ul style="list-style-type: none"> <li>• Basic C++ commands, Arrays, Control Structures, Operators, Function overloading and Inline functions are taught.</li> <li>• Classes, Inheritance, Virtual functions and Friend functions are covered in detail.</li> <li>• Templates, Exception Handling, Streams – Strings, Objects are covered.</li> </ul>
<b>BCA 304T</b> Financial Accounting & Management	<ul style="list-style-type: none"> <li>• Introduction to accounting and the basic terms.</li> <li>• Financial Accounting Process : Preparation of Journal, Ledger and subsidiary books</li> <li>• Accounting for bills of exchange</li> <li>• Preparation of Final accounts of Sole-traders and Partnership</li> <li>• Introduction to Tally</li> </ul>
<b>BCA305T</b> Operating Systems	<ul style="list-style-type: none"> <li>• Introduction to Operating Systems , Types of OS are covered.</li> <li>• CPU Scheduling algorithms are being taught.</li> <li>• Process Synchronization &amp; Deadlocks mechanisms are being taught.</li> <li>• Memory Management Techniques- Paging, Segmentation are covered. Page replacement algorithms are being taught.</li> <li>• File Management – Concepts, Accessing methods are covered. Disk Management- Structure, Scheduling methods are being taught.</li> <li>• Protection &amp; Security methods are being taught.</li> </ul>

<b>BCA303P</b> C++ Lab	<ul style="list-style-type: none"> <li>• Program on Creation of Classes &amp; Objects, Array of Objects in C++ are covered.</li> <li>• Programs on Function Overloading, Friend Functions, Inline function are covered.</li> <li>• Programs on Operator Overloading, Inheritance are being taught.</li> <li>• Programs on this pointer, Polymorphism are covered.</li> <li>• Programs on templated, Exception Handling are being taught.</li> </ul>
<b>BCA304P</b> Accounting Package Lab	Using Tally, Problems on the following topics are implemented: <ul style="list-style-type: none"> <li>• Creation of Company, Accounting Groups &amp; Ledgers</li> <li>• Preparation of Trial Balance, Cash book, Purchase Book, Sales Book, Purchase returns book, Sales return book.</li> <li>• Displaying of Subsidiary book, Trading Account &amp; Profit &amp; Loss A/C, Balance Sheet</li> </ul>
<b>Foundation Course</b> Culture, Diversity and Society	<ul style="list-style-type: none"> <li>• Understand and respect the rich diversity in Indian Society and Culture.</li> <li>• Develop Secular values of tolerance, communal harmony and peaceful coexistence.</li> <li>• Address the Contemporary challenges before Indian society like Communalism and gender discrimination.</li> <li>• Promote the unity and integrity of India.</li> </ul>
<b>BCA403T</b> Visual Programming	<ul style="list-style-type: none"> <li>• IDE of Visual Basic 6.0, Controls in VB, Properties, methods &amp; events of Objects, Dialog boxes are covered.</li> <li>• Programming in VB – Datatypes, Variables, Constants, Operators, Control Structures, Arrays are covered. Menu and MDI creation are covered.</li> <li>• OOP’s concept, DLL, Windows API, Database Connectivity are covered.</li> <li>• Visual C++ Components, Classes &amp; Objects, Event Handling , VBX Controls are being taught. MFC, Document View Architecture and</li> </ul>
	<ul style="list-style-type: none"> <li>• serialization are being taught.</li> <li>• MDI, Splitter windows, Exception Handling, OLE, DLL, Database application and ODBC are being taught.</li> </ul>
<b>BCA404T</b> Unix Shell Programming	<ul style="list-style-type: none"> <li>• Unix Shell Architecture, Unix-Internal &amp; External Commands, Directory Commands, File Related Commands, Disk related commands are covered.</li> <li>• Process Management in Unix, Disk Partitioning, Stream Editors, Library function on Unix system calls are being taught.</li> <li>• Shell Programming-Vi Editor, Shell Script, Shell Screen Interface , Shell statements are being taught.</li> <li>• Control Structures in shell programming, System Communication commands, System Administration, User management &amp; Domain Naming system are covered.</li> </ul>

<b>BCA405T</b> Operation Research	<ul style="list-style-type: none"> <li>• Linear Programming Problems – Graphical Solution &amp; Simplex method are being taught.</li> <li>• Transportation problem using North west corner rule, Matrix minima method, Vogel’s approximation method, MODI method to find optimal solution are covered.</li> <li>• Assignment algorithm, Hungarian method are covered.</li> <li>• Network Diagrams, Time Calculation in Networks, Critical Path method, Project Evaluation and Review Techniques, Algorithm &amp; Flowchart for CPM and PERT are covered.</li> <li>• 2-Person, Zero Sum Games, Games without Saddle points, Solution for 2*2 games are being taught.</li> </ul>
<b>BCA403P</b> Visual Programming Lab	<ul style="list-style-type: none"> <li>• Developing Real time applications using various VB Controls and implementing validation features.</li> <li>• Developing applications using predefined and user defined functions.</li> <li>• Developing Menu &amp; MDI Creation applications</li> <li>• Developing Database applications using DAO, ADO, ActiveX Data objects.</li> <li>• Developing File Programs in VB</li> <li>• Developing application using Class Module.</li> <li>• Developing VC++ applications using wizard, MFC.</li> </ul>
<b>BCA404P</b> Unix Lab	<ul style="list-style-type: none"> <li>• Basic Shell Script programs</li> <li>• Shell Script Programs on File Handling</li> <li>• Shell Script Programs on String Handling</li> </ul>
<b>Skill Development Course</b> Personality Development	<ul style="list-style-type: none"> <li>• Familiarizing with the following topics :Self awareness, Goal setting, Interpersonal Skills, Creativity, Stress Management, Time Management , Leadership development.</li> </ul>
<b>BCA501T</b> Data Communication & Networks	<ul style="list-style-type: none"> <li>• Introduction to Data Communication and Computer Networks, Network Architecture and Switching Techniques, Layered Architecture and applications, Data and Signals, Encoding are covered.</li> <li>• Transmission Media, Multiplexing, Error Detection and Correction are being taught.</li> <li>• Peer to Peer Protocols and Service Models,ARQ Protocols, PPP protocol and HDLC are covered.</li> <li>• LAN Standards, Medium Access Control Protocols, Random Access</li> </ul>
	<ul style="list-style-type: none"> <li>Protocols, Scheduling approaches are being taught.</li> <li>• Packet Network Topology, Types of Packet Switching, Static/Non adaptive algorithm, Dynamic adaptive algorithm, Congestion Control types are covered.</li> </ul>



<b>BCA502T</b> Software Engineering	<ul style="list-style-type: none"> <li>• Software Products, Process, Process models, requirements &amp; specification are being taught.</li> <li>• Prototyping in S/W process, Prototyping Techniques, Software Design Process, Strategies are covered.</li> <li>• Object oriented &amp; function oriented design, Comparison of Design Strategies, User Interface Design are covered.</li> <li>• Software Reliability metrics, specification, S/W development with reuse are covered.</li> <li>• Testing Process, Test Planning &amp; Strategies, Types of testing, Static Analysis tools, Management issues in developing a project are being taught.</li> </ul>
<b>BCA503T</b> Computer Architecture	<ul style="list-style-type: none"> <li>• Logic Gates, Boolean algebra, Map Simplification, Flipflops, Registers, Multiplexers, Binary Counters are being taught.</li> <li>• Data Representation-Fixed &amp; Floating Point, Binary Codes, Register, Memory and I/O transfer of data are covered.</li> <li>• Instruction Codes, Computer Instructions, Timing &amp; Control Unit, register reference, Memory reference instructions, I/P O/P &amp; interrupt are covered.</li> <li>• General register organization, Types of CPU organization, Instruction formats, Addressing modes, Program Interrupt are covered.</li> <li>• Peripheral Devices, I/P O/P interface, Modes of transfer, Programmed I/O, Interrupt initiated I/O, DMA are covered.</li> <li>• Main memory, Auxiliary memory, associative memory, Cache memory, Virtual memory are covered</li> </ul>
<b>BCA504T</b> Java Programming	<ul style="list-style-type: none"> <li>• Java-Introduction, Features, Environment, JVM, Programming Concepts are covered in detail.</li> <li>• Classes &amp; Objects, Constructors, Inheritance, Abstract methods &amp; classes, Arrays, Strings, Vectors, Wrapper classes are being taught.</li> <li>• Interfaces, Packages, Multithreaded Programming are covered in detail.</li> <li>• Exception handling, Applet programming are covered.</li> <li>• Graphical Programming, i/P O/P files in java are being taught.</li> </ul>
<b>BCA505T</b> Microprocessor & Assembly Language	<ul style="list-style-type: none"> <li>• Architecture and Operation of 8085 are covered.</li> <li>• Programming 8085 , Writing assembly language programming are being taught.</li> <li>• Programming Techniques, Conversion between various codes, BCD addition, subtraction, Multiplication &amp; Division are covered.</li> <li>• Memory Interface &amp; Interrupts of 8085 are being taught.</li> <li>• Interfacing of Peripherals &amp; its applications are covered.</li> </ul>
<b>BCA504P</b> Java Programming Lab	<ul style="list-style-type: none"> <li>• Programs on Command Line arguments, Method Overloading, getting the I/P from the keyboard are covered.</li> <li>• Programs using Classes &amp; Objects, Constructor Overloading, String Class, vector Class are covered.</li> </ul>

	<ul style="list-style-type: none"> <li>• Programs using inheritance, method overriding are covered.</li> <li>• Programs using Abstract classes &amp; methods, Interfaces, Multithreaded programming, Exception Handling are covered.</li> <li>• Programs on Applet Programming, Graphical Programming, Event handling, Threading concepts in graphical programming, I/O handling are covered.</li> </ul>
<b>BCA505P</b> Assembly Language Programming Lab	<ul style="list-style-type: none"> <li>• Programs on Addition/ Subtraction/Multiplication of 8 bit &amp;16 bit numbers.</li> <li>• Programs on solving Boolean expressions &amp; algebraic equations.</li> <li>• Programs to alter the contents of processor registers, memory address.</li> <li>• Programs on BCD addition.</li> </ul>
<b>BCA506P</b> Project	<ul style="list-style-type: none"> <li>• Stand alone application should be developed using any RDBMS package.</li> </ul>
<b>Skill Development Course</b> Banking and Finance	<ul style="list-style-type: none"> <li>• Complete insight on Banking System in India is covered.</li> <li>• Familiarizing with RBI &amp; its functions.</li> <li>• Study on start-ups venture, Capitalist angel investors is being taught.</li> <li>• Financial Instruments and Financial Services are covered.</li> </ul>
<b>BCA601T</b> Theory of Computation	<ul style="list-style-type: none"> <li>• Introduction to Finite Automata, Types, FA with Epsilon transitions are covered.</li> <li>• FA and Regular Expressions, Applications of RE, Regular Languages, Equivalence &amp; minimization of automata are being taught.</li> <li>• Context Free Grammars, Parse Trees, Applications, Ambiguity in grammars &amp; languages, Pushdown automata, Language of PDA, Equivalence of PDA's and CFG's are covered.</li> <li>• Deterministic Pushdown automata, Normal forms for CFG's, Pumping lemma for CFG's, Closure properties of CFL's are covered.</li> <li>• Turing Machines, Programming techniques, Post's Correspondence are being taught.</li> </ul>
<b>BCA602T</b> Systems Programming	<ul style="list-style-type: none"> <li>• Machine Structure, Evolution of the components of System Programming, Machine Language &amp; Assembly language are being taught.</li> <li>• Design of Assembler, Problem Statement, Data Structure, Format of Databases, Algorithm &amp; Flowchart of Pass 1 &amp; 2 assembler, Types of Searching &amp; Sorting are covered.</li> <li>• Macro Instruction, Conditional Macro Expansion, Macro calls within macros, Macro Instructions defining macros, 2 pass algorithm, Implementation of macro within an assembler are being taught.</li> <li>• Loader Schemes, Relocating loaders, Direct Linking Loaders, Binders, Linking loaders, Overlays, Dynamic binders, Design of absolute loader and Direct Linking Loader are covered.</li> <li>• Compilers, Phases of Compiler in detail are covered.</li> </ul>
<b>BCA603T</b> Cryptography & Network Security	<ul style="list-style-type: none"> <li>• Security Goals, Cryptographic attack techniques, Mathematics of Cryptography are covered.</li> <li>• Traditional Symmetric Key Ciphers – Types, Data Encryption Standard – Structure, Analysis, Security, Multiple DES, Advanced Encryption Standard are being taught.</li> </ul>

	<ul style="list-style-type: none"> <li>• Modern Symmetric Key Ciphers- Types, Mathematics of Asymmetric Key Cryptography, RSA Cryptosystem, Rabin, Elgamal, Elliptic curve Crypto system are covered.</li> <li>• Hash Functions in Cryptography, Digital Signature, Schemes &amp; Applications, Key Management are covered.</li> <li>• Familiarizing with the Security concepts at the Application Layer, Transport Layer and Network Layer.</li> </ul>
<b>BCA604T</b> Web Programming	<ul style="list-style-type: none"> <li>• Fundamentals of Web, Web Programmers Toolbox, XHTML Syntax, Document Structure, HTML Tags-Text, Images, Hyperlinks,Lists,Tables are covered.</li> <li>• Forms, Frames in HTML, CSS -Levels of Style sheets, Selector Forms, Property Value forms, Text &amp;Color Properties, Box model are being taught.</li> <li>• JavaScript-Introduction, Syntactic Characteristics, Primitive Operations, Expressions, Keyboard I/P &amp; Screen O/P, Control Statements, Object Creation &amp; Modification- Arrays, Functions, Pattern Matching using expressions, errors in scripts are covered.</li> <li>• DOM, Elements access in JavaScript, Handling events from Body elements, Button, Textbox &amp; Password elements, Navigator Object, DOM tree traversal &amp; Modification are being taught.</li> <li>• Dynamic Documents with JavaScript, XML- Syntax, Document Structure, Schemas, Displaying XML documents with CSS, XML Processors, Web Services are covered.</li> </ul>
<b>BCA604P</b> Web Programming Lab	<ul style="list-style-type: none"> <li>• Implementing HTML Tags of table, hyperlink and Images.</li> <li>• Basic Java Script programs including Form elements of HTML.</li> <li>• CSS Programs implementing property value forms.</li> <li>• Java script programs to implement user defined functions, arrays.</li> <li>• Implementing event handlers in Image processing.</li> </ul>
<b>BCA605P</b> Project Work	<ul style="list-style-type: none"> <li>• Web based application should be developed.</li> </ul>
<b>Skill Development Course</b> Entrepreneurship & Innovation	<ul style="list-style-type: none"> <li>• Understand the entrepreneurship from theoretical perspective and the role of entrepreneurs in new enterprise creation process.</li> <li>• Describe the way in which entrepreneurs perceive opportunity, manage risk, organize resources and add value.</li> <li>• Understand the attitudes, values, characteristics, behaviour and processes associated with possessing and entrepreneurial activities in a globalised and competitive environment.</li> </ul>

# **M.Com (Master in Commerce)**

## **Program Outcomes**

- To acquaint a student with conventional as well as contemporary areas in the discipline of Commerce.
- To enable a student well versed in national as well as international trends.
- To enable the students for conducting business, accounting and auditing practices, role of regulatory bodies in corporate and financial sectors nature of various financial instruments.
- To provide in-depth understanding of all core areas specifically Advanced Accounting, International Accounting, Management, Security Market Operations and Business Environment, Research Methodology and Tax planning.

## **Program Specific Outcomes**

After the completion of the M.Com Course, a student is able

- For pursuing research in their chosen areas.
- For teaching in Schools and Colleges after qualifying requisite tests.
- For working as data analyst.
- To work as investment consultants after a brief internship in suitable organizations absorbed in Banking and Insurance sector as executives

## **Course Objectives and Outcomes**

### **M.Com Sem-I**

**Subject: Managerial Economics**

**Subject Code: MC-101**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

#### **Course Objectives**

- To help the students form a clear idea of Managerial Economics.
- To enable the students understand determination of price under different market forms.
- To enable the students understand the situation of consumer and producer equilibrium.
- To describe the concept of Inflation and its consequences in an economy.
- To illustrate the calculation of national income.

#### **Course Outcomes**

- Ability to forecast demand in light of changing circumstances and to formulate business plans.
- Ability to chalk out Business Policies.
- Knowledge about Profit Planning and control.
- Skill to analyze effects of Government Policies.

**Subject: Statistical Analysis for Business**

**Subject Code: MC-102**

**Periods per week: 5**

**Practicals per week: 3**

**Duration of period: 45 minutes**

### **Course Objectives**

- To bring out clearly the importance of statistics in solving different research problems.
- To enable the students in-depth understanding of the concepts of probability, sampling, correlation and their applicability.
- To help the students gain a comprehensive view of the usage and importance of SPSS in solving different statistical problems.

### **Course Outcomes**

- Development of logical reasoning ability in students.
- Knowledge about the applicability of various parametric and non-parametric tests.
- Ability to use SPSS to solve statistical problems.
- Ability to make decisions under uncertain business situations.

### **Subject: Management Principles and Organization Behavior**

**Subject Code: MC-103**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

### **Course Objectives**

- To enable the students analyze the implementation of different functions of management.
- To develop an understanding regarding the role of leaders in decision making process in an organization.
- To help students get an insight into the behavior of individuals and groups in an organization.
- To apprise the students regarding the impact of important developments on organization behavior.
- To assess the role of emotional intelligence in an organization.

### **Course Outcomes**

- Ability to execute managerial tasks of planning, organizing and controlling.
- Understanding of different styles of leadership and its impact on decision making process.
- In-depth understanding of emotional labour and different types of emotions.
- Ability to analyze challenges and opportunities in the field of organization behavior.

### **Subject: Business Environment**

**Subject Code: MC-104**

**Periods per week: 5**

**Duration of period: 45 minutes**

### **Course Objectives**

- To give an insight into meaning of business environment and its components.
- To familiarize with Economic System & its types.
- To enable the students to analyze Positive and Negative impact of Liberalization, Privatization and Globalization in Indian economy.
- To make the students aware about provisions of FEMA, The Consumer Protection Act 1986, The Environment Protection Act 1986 and various regulatory policies of Indian Government.
- To describe implication of Deficit Financing, Disinvestment of Public enterprises and Demonetization etc. in Indian Economy.

### **Course Outcomes**

- Skill to identify and differentiate various Micro and Macro factors affecting functioning of Business.
- Ability to analyze Indian Economy in light of changing government regulatory policies.
- Understanding of the targets and priorities of five years plans.
- Ability to file complaint against unfair trade practices under Consumer Protection Act.
- Familiarization with the objectives and strategies in Economic planning with special reference to Planning Commission and NITI Aayog.

### **Subject: Management Accounting and Control Systems**

**Subject Code: MC-105**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

### **Course Objectives**

- To introduce a separate branch of accounting i.e. Management Accounting and its relevance in a business organization.
- To enable the students to understand Managerial behavior, Control structure and Control Process under different circumstances.
- To understand the applicability of certain contemporary techniques of management i.e. Target Costing, Value Chain Analysis, Activity Based Costing etc.
- To familiarize the students about the various measures of segment performance evaluation like Balance Scorecard, Economic Value Added.
- To enable the students to understand objectives of managerial reporting and reporting requirements at different levels of management.

### **Course Outcomes**

- Familiarization with the Management Control Systems.
- Ability to understand Managerial Behaviour and Control Structure prevalent under varied business environment.
- Skill to evaluate the Segment Business Units.
- Familiarization with Contemporary issues in management.
- Clarity about the reporting requirements of management.

## **M.Com Sem-II**

### **Subject: Corporate Financial Accounting and auditing**

**Subject Code: MC-201**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

### **Course Objectives**

- To give a broad view of the provisions to be followed for the preparation of final accounts of companies as per Companies Act 2013.
- To give a detailed view of legal provisions regarding calculation of managerial remuneration.
- To explain the concept of divisible profits and its implications in various accounting procedures leading to preparation of Final Accounts if a Company as per Company Act.

- To give a comprehensive view of legal provisions governing audit of Companies and its various kinds.

### **Course Outcomes**

- Ability to calculate Goodwill, evaluate shares adopting different methods and preparation of final accounts of Indian Companies.
- Understanding of the provisions regarding the appointment, qualifications, duties and liabilities of auditor.
- Clarity about the applicability of different types of audits.

### **Subject: Financial Management**

**Subject Code: MC-202**

**Periods per week: 5**

**Duration of period: 45 minutes**

### **Course Objectives**

- To introduce the students about the importance of Finance Management for a business.
- To enable them to understand the various modes and techniques of managing the financial resources of an organization.
- To know about the various factors to be considered while planning for financial policies.
- To acquaint the students regarding the various types of decisions taken by financial managers in current competitive environment.
- To enable students to select an investment project out of alternative investment proposals.

### **Course Outcomes**

- Skill to manage financial resources of a company.
- Knowledge about the various sources of finance available to businessmen these days.
- Ability to select an investment proposal by analyzing the compounded and discounted value of money invested.

### **Subject: Research Methodology**

**Subject Code: MC-203**

**Periods per week: 5**

**Practicals per week: 3**

**Duration of period: 45 minutes**

### **Course Objectives**

- To introduce the concept of Research and Research Methodology.
- To enable the students to understand the Quantitative and Qualitative Methods for conducting research.
- To make students understand about Tabular and Graphical Description of Data.
- To enable the students to use SPSS for solving the research data.
- To enable the students to understand the Structure and Components of Research Report.
- To enable the students to write the research report using hypothetical data.

### **Course Outcomes**

- Familiarization with Research and research problems.
- Understanding of the Quantitative and Qualitative Methods of research.
- Ability to represent data in tabular as well as graphical manner.
- Skill to write Research paper.

- Detailed knowledge about SPSS and its application.

**Subject: Marketing Management**

**Subject Code: MC-204**

**Periods per week: 5**

**Duration of period: 45 minutes**

#### **Course Objectives**

- To develop understanding about holistic nature of Marketing.
- To enable the students understand the techniques to scan Marketing Environment.
- To make students understand the different buying behavior of consumers.
- To familiarize the students about the techniques of Market segmentation, Product Pricing, Promotion, Packaging and distribution.
- To familiarize with the importance of social responsiveness in marketing decisions.

#### **Course Outcomes**

- Familiarization with Marketing Concepts and Philosophies.
- Ability to understand the changing Marketing Environment.
- Knowledge of different consumer and business buying behaviors.
- Familiarization with product related decisions.

**Subject: Human Resource Management**

**Subject Code: MC-205**

**Periods per week: 5**

**Duration of period: 45 minutes**

#### **Course Objectives**

- To enable the students to evaluate the process of recruitment and selection.
- To impart knowledge for developing an organization's remuneration plans.
- To analyze the changes in human resource practices.
- To design and implement different methods for training of human resources.
- To apprise the students regarding various methods of collecting job analysis information.

#### **Course Outcomes**

- Capability to understand employee recruitment and selection process.
- Understanding of different types of remuneration plans and their significance.
- Capability to evaluate different training programs and understanding of their limitations.
- Knowledge regarding the developing role of human resource management in the globalized world.

## **M.Com Sem-III**

**Subject: Banking and Insurance Services**

**Subject Code: MC-301**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

#### **Course Objectives**



- To provide fundamental understanding of the structure of commercial banking in India and its management.
- To apprise the students regarding the regulatory environment in which insurance companies operate.
- To give an insight into new innovations in the banking sector.
- To apprise the students regarding the status of bancassurance in India.
- To make the students understand the various risks faced by the banking sector in India.

#### **Course Outcomes**

- Understanding the operations and working of insurance companies in India.
- Capability to assess the significance of online banking.
- Understanding the functions and significance of RBI in India.
- Knowledge regarding different models of bancassurance in India.
- Understanding of the different techniques of risk management.

#### **Subject: Security Analysis and Portfolio Management**

**Subject Code: MC-311**

**Periods per week: 5**

**Duration of period: 45 minutes**

#### **Course Objectives**

- To gain knowledge of importance of Security Analysis and Portfolio Management in taking investment decisions.
- To enable students to understand various dimensions of managing an investment programme.
- To understand the intricacies of analyzing securities to design a portfolio.
- To familiarize the students regarding the techniques of analyzing securities being applied by fund managers.
- To develop an insight into various issues in portfolio construction, revision and evaluation.

#### **Course Outcomes**

- Familiarization with the designing and construction of portfolios.
- Knowledge about techniques of doing investment analysis.
- Ability to identify and study the trends of stock markets.
- Ability to take investment decisions taking into consideration various determinants influencing investment decisions.

#### **Subject: Contemporary Accounting**

**Subject Code: MC-312**

**Periods per week: 5**

**Duration of each period: 45 minutes**

#### **Course Objectives**

- To introduce the students regarding contemporary issues in Accounting.
- To enable the students account for human resources and price level changes in the books of accounts.
- To enable the students to understand the process leading to the formulation of accounting standards.

- To make students understand the concept of Value added reporting, Economic value added and corporate social reporting.
- To help the students understand the effect of various environmental factors on contemporary accounting.

#### **Course Outcomes**

- Practical knowledge about the application of HRA and Price level accounting in Indian context.
- Ability to write report with respect to recent trends in published accounts.
- Understanding of the practical use of Accounting Standards in preparation of financial statements.
- Skill to prepare value added statement and calculate economic value added.

#### **Subject: Strategic Management**

**Subject Code: MC-321**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

#### **Course Objectives**

- To describe the role of strategic management in the success of successful companies.
- To enable the students understand the components which formulate a strategic intent.
- To make students understand and formulate different strategies at business level and corporate level.
- To discuss the role of corporate governance and social responsibility in the strategic management of an organization.

#### **Course Outcomes**

- Familiarization with the strategic management process.
- Understanding about the techniques to scan an environment and the role of environment scanning in hurdle less strategic management of an organization.
- Understanding about the equal importance of strategy formulation and strategy implementation.
- Clarity about the strategies followed by different companies in the corporate world.

#### **Subject: Security Market Operations**

**Subject Code: MC-322**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

#### **Course Objectives**

- To give an overview of Capital Market and its components.
- To enable the students to understand various innovative Financial Instruments.
- To enable the students to understand the role of Depository System and Depository Act 1996 and SEBI in security trading.
- To impart knowledge regarding the calculation methodology of Stock Market Indices.

#### **Course Outcomes**

- Familiarization with Capital Market and Depository System prevalent in capital markets.
- Clarity about the current status of Stock Exchanges in India.

- Understanding about the Trading, Clearing and Settlement procedures followed at stock exchanges.
- Clarity about the calculation methodology of Indices.

**Subject: Consumer Behaviour**

**Subject Code: MC-351**

**Periods per week: 5**

**Duration of period: 45 minutes**

#### **Course Objectives**

- To enable the students understand varying behavior patterns of Consumer.
- To elaborate the considerations for consumer decision making.
- To enable the students to draw a relationship between the culture, sub-culture, peer group, family influence and consumer behaviour.
- To enable the students to understand the theories of personality, consumer attitude and perception of consumers.

#### **Course Outcomes**

- Knowledge about the consumer decision making process.
- Understanding of the influence of various environmental factors on consumer behaviour.
- Have practical insight at the various stages of purchasing.

**Subject: Retail Management**

**Subject Code: MC-352**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

#### **Course Objectives**

- To highlight the importance of retailing in increasing market share.
- To enable the students to understand Retail shopper behavior and its decision making process.
- To familiarize the students with different types of retail locations and concepts like retail store design and visual merchandising, retail merchandising etc.
- To make students understand the concept of Category management.

#### **Course Outcomes**

- Knowledge about Retailing practices followed in India.
- Ability to understand behavior of Retail shopper.
- Basics of Retail Merchandising and Merchandising Planning Process.
- Familiar with Merchandise Procurement and Retail pricing issues.

## **M.Com Sem-IV**

**Subject: International Accounting**

**Subject Code: MC-401**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

### **Course Objectives**

- To introduce another specialized branch of Accounting and bring out its evolution and relevance in the contemporary business environment.
- To focus on the specific needs and techniques of financial analysis in the MNCs.
- To bring out the need and relevance of harmonization of Financial reporting practices globally.
- To give an overview of the distinctive issues in accounting at international level viz. International transfer pricing, foreign currency translation and Strategic accounting issues in MNCs.

### **Course Outcomes**

- Knowledge of concept, evolution and relevance of international accounting.
- Understanding of varying patterns and practices of financial reporting across the nations.
- Development of an insight to read between the lines while studying a financial statement of an MNC
- Understanding the procedures related to foreign currency translation, International taxation and Consolidation of Financial Statements in the context of MNCs.

**Subject: E Commerce**

**Subject Code: MC-402**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

### **Course Objectives**

- To impart knowledge about the relevance of E-Commerce in current competitive environment.
- To make the students aware about the common legal, ethical and tax issues involved in e-commerce.
- To develop understanding of the working of online shopping and e-payment.
- To enable the students how to use various tools to build a dynamic website.
- To help them learn how to evaluate e-commerce websites using major e-commerce revenue models.

### **Course Outcomes**

- Ability to start up and operate e-commerce website.
- Familiarization with online payment services and different cyber laws.
- Ability to understand customer relationship life.
- Knowledge of cyber world and scope of cyber laws in E-commerce.

**Subject: International Financial Management**

**Subject Code: MC-411**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

### **Course Objectives**

- To introduce about the foreign exchange systems prevalent in international trade and business.

- To elaborate the manner of determination of exchange rates.
- To make students aware about the importance of risk analysis of host countries and their political stability before investing in the host country.
- To discuss various exposures involves in international transactions and its management.

#### **Course Outcomes**

- Knowledge about IMF, World Bank, European Monetary System and their role in international financial management.
- Clarity about the role of central bank in international financial management.
- Ability to use various scanning techniques to scan the environment of host country.
- Understanding of the manner of management of exposures involved in international transactions.

#### **Subject: Financial Markets and Financial Services**

**Subject Code: MC-412**

**Periods per week: 5**

**Duration of period: 45 minutes**

#### **Course Objectives**

- To introduce the students about Financial System prevalent in India.
- To impart knowledge about the structure of development banks in India.
- To understand the central banking operations, functions of NBFCs, Factoring and Venture capital companies in India.
- To learn about the clearing procedure of stock exchanges in India.
- To enable the students to understand the progress of Government securities markets, Treasury Bill market, Commercial Paper Market and Certificate of Deposits Market in India.

#### **Course Outcomes**

- Knowledge of the progress of various components of Indian financial system.
- Clarity of stock market operations and the clearing and settlement procedures of stock exchanges.
- Detailed understanding about the Banking Structure of the country and its recent developments.

#### **Subject: Corporate Tax Law & Planning**

**Subject Code: MC-413**

**Periods per week: 5**

**Duration of period: 45 minutes**

#### **Course Objectives**

- To make the students aware of the Income Tax laws prevalent in the country related to Corporate Sector.
- To gain knowledge about the role of tax planning in managerial decision making.
- To familiarize with the relevant provisions and procedure to compute total income of a company.
- To understand how the Corporate Tax Laws can be used for tax planning.

#### **Course Outcomes**

- Ability to identify the difference between Tax Evasion, Tax Planning and Tax Avoidance.
- Understanding of various deductions, rebates and reliefs to reduce the taxable income and tax liability.

- Skill to take managerial decisions keeping in view the Income Tax Rules.
- Knowledge of Double Taxation Avoidance Agreement.

**Subject: Advertising and Sales Management**

**Subject Code: MC-451**

**Periods per week: 5**

**Duration of each period: 45 minutes**

**Course Objectives**

- To introduce the various principles adopted for advertising and marketing different products.
- To enable students to create and manage media campaigns.
- To learn ways to engage and communicate with clients and target audience.
- To create awareness with the legal, ethical and social responsibility of advertisers.
- To guide the students to specialize in different areas of advertising.

**Course Outcomes**

- Ability to study market trends and consumer behavior.
- Understanding of sales milestones, sales situations, selling styles and sales strategies followed by different business houses.
- Ability to connecting advertising strategies and organizational goals with the moral code of conduct in advertising.
- Skill to targeting new business and exploit new areas of opportunity.

**Subject: Brand and Distribution Management**

**Subject Code: MC-452**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

**Course Objectives**

- To introduce the students about various brand related issues viz. Brand Management, Brand Equity and Brand Loyalty.
- To enable the students to formulate various branding strategies.
- To familiarize the students about Qualitative and Quantitative Research techniques for measuring Brand Performance.
- To understand different Retail formats and retail locations.
- To make the students understand intricacies of Retail store design and Visual Merchandising and Retail Supply Chain Integration.

**Course Outcomes**

- Familiarization with Brand Management, Brand Equity and product branding strategies.
- Ability to measure Brand Performance using Research techniques.
- Understanding of various Retail formats and Retail locations.
- Ability to integrate Retail Supply Chain.

**Subject: Services Marketing**

**Subject Code: MC-453**

**Periods per week: 5**

**Duration of Period: 45 Minutes**

**Course Objectives**

- To impart knowledge regarding customer expectations from services and their perceptions about it.
- To apprise the students regarding the concept of service recovery paradox.
- To provide knowledge regarding an effective services marketing research program.
- To make the students understand different methods for pricing of services.
- To enable the students understand different models to evaluate service quality.

### **Course Outcomes**

- Capability to evaluate the suitability of different pricing methods for services.
- Understanding of the roles of employees and customers in service delivery.
- Capability to analyze different service quality models.
- In-depth understanding of impact of service failure and recovery.
- Ability to analyze and interpret marketing research findings.

### **Subject: Seminar**

**Duration of period: 45 minutes**

### **Course Objectives**

- To create research ability among the students in writing seminar report on some current issues of the economy and curriculum.
- To enable the students to use some statistical techniques in showing the trend of the various economic variables used in the study.
- To make students understand the need and objectives of the study by giving real world examples.
- To make the students develop logical reasoning and built up confidence in themselves while answering any question in case if there is questioning on their topic

### **Course Outcomes**

- Basic orientation towards research.
- Understanding the practical application of theoretical models in the discipline of Commerce, Economics and Business Administration etc.
- Clarity regarding difference between qualitative and quantitative methods of research while writing a seminar report.
- Skill to write bibliography of a seminar report citing references from different sources.