






**2.6.1 Programme outcomes, Programme specific outcomes and course outcomes for all Programme offered by the institution are stated and displayed on website and communicated to teachers and students.**

<b>Course Outcome</b>	<b>Data Link</b>
<b>Master of Computer Application (MCA)</b>	
<b>Master of Computer Application (Integrated) (MCA-Integrated)</b>	
<b>Bachelor of Computer Application (BCA)</b>	
<b>Bachelor of Business Administration (BBA)</b>	
<b>Bachelor of Management Studies (BMS)</b>	

## Master of Computer Application (MCA)

Code	Course Name	Course Outcome
CA-101	Database Management System (DBMS)	<ul style="list-style-type: none"> <li>• Apply the relational model, specify integrity constraints, and explain how to create a relational database using an ER diagram and normalization techniques.</li> <li>• Apply SQL to create, query and manipulate relational databases.</li> <li>• Determine partitioning and distribution of data across networked nodes of a DBMS and data optimization in a distributed environment.</li> </ul>
CA-102	Operating Systems	<ul style="list-style-type: none"> <li>• Analyze design aspects and data structures/policies/algorithms used for file subsystem, memory subsystem, process subsystem and i/o subsystem of Unix OS.</li> <li>• Differentiate between threads and processes and compare different processor scheduling algorithms</li> <li>• Identify the need to create the advance and special purpose operating system.</li> </ul>
CA-103	Fundamentals of Artificial Intelligence	<ul style="list-style-type: none"> <li>• Identify problems that are amenable to solution by AI methods.</li> <li>• Identify appropriate AI methods to solve a given problem.</li> <li>• Design smart system using different informed search / uninformed search or heuristic approaches.</li> </ul>
CA-104 (A)	Computer Programming and Problem Solving	<ul style="list-style-type: none"> <li>• Design blocks of the problems.</li> <li>• Build logic for solving new problems on paper.</li> <li>• Model the logic as code.</li> </ul>
CA-104 (B)	Web Programming	<ul style="list-style-type: none"> <li>• Design the web applications/sites</li> <li>• Apply dynamic paging using AngularJS/JSON/JQuery.</li> <li>• Use Javascript / Node.JS to make design and scripting.</li> </ul>
: CA-105 (A)	Java Programming (Core Java)	<ul style="list-style-type: none"> <li>• Create Java application development using polymorphism, inheritance, and inner classes.</li> <li>• Develop GUI interface and event driven applications.</li> <li>• Manipulate databases through java application.</li> </ul>
CA-105 (B)	Object Oriented Programming using C++	<ul style="list-style-type: none"> <li>• Understand and use the basic programming constructs of C++ and manipulate various C++ data types, such as arrays, strings, and pointers.</li> <li>• Manage memory appropriately using proper allocation / de-allocation procedures.</li> <li>• Write small-scale C++ programs using the above skills.</li> </ul>
CA LAB -I	LAB on DBMS	<ul style="list-style-type: none"> <li>• Design and implement a database schema for a given problem-domain</li> <li>• Create and maintain tables using PL/SQL, Populate and query a database using SQL DML/DDL commands and programming PL/SQL including stored procedures, stored functions, cursors, triggers.</li> <li>• Application development using PL/SQL &amp; front-end tools.</li> </ul>
CA LAB-II	LAB on OS (Linux)	<ul style="list-style-type: none"> <li>• Implement the Installation of Linux system.</li> <li>• Understand the basic commands of Linux operating system and can write shell scripts.</li> <li>• Implement system administration tasks, installation, configuration and administration of internet servers.</li> </ul>

CA LAB-III (A)	LAB on Computer Programming and Problem Solving(COPS)	<ul style="list-style-type: none"> <li>• Construct logic for the problems.</li> <li>• Write algorithms and able to draw logic on paper.</li> <li>• Write code for the logic developed.</li> </ul>
CA LAB-III(B)	LAB on Web Designing	<ul style="list-style-type: none"> <li>• Develop Web site/App.</li> <li>• Use Bootstrap/Javascript to make design and scripting.</li> <li>• Make Web site dynamic using AngularJS/JSON/JQurey.</li> </ul>
CA LAB-IV(A)	LAB on Java Programming	<ul style="list-style-type: none"> <li>• Write java program using inner classes and static fields in implementation of Java application</li> <li>• Develop Java application for GUI development and event handling.</li> <li>• Develop database application using JDBC.</li> </ul>
CA LAB-IV	LAB on C++ Programming	<ul style="list-style-type: none"> <li>• Develop logic of a program for solving real time problems and isolate and fix common 22 errors in C++ programs</li> <li>• Understand the object-oriented approach for the program development and make use of the OOP concepts (data abstraction, encapsulation, polymorphism, overloading, and inheritance) of C++ appropriately in problem solving.</li> <li>• Create applications using the STL library</li> </ul>
CA-201	Advanced Software Development Methodologies	<ul style="list-style-type: none"> <li>• Use git for software development and deployment.</li> <li>• Apply a thorough understanding of Agile principles and specific practices.</li> <li>• Judge, craft and evaluate appropriate adaptations to existing practices or processes depending 24 upon analysis of typical problems.</li> </ul>
CA-202	Mathematical Foundations of Computer Science	<ul style="list-style-type: none"> <li>• Identify, formulate, and develop solutions to computational challenges.</li> <li>• Analyze the behavior of the data, model the data using statistical measures and represent it graphically on paper without using available computerized tools.</li> <li>• Apply mathematical foundations, probability theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.</li> </ul>
CA-203	Data Structures and Algorithms	<ul style="list-style-type: none"> <li>• Understand the concept of Dynamic memory management, data types, algorithms, Big O notation.</li> <li>• Understand data structures such as arrays, linked lists, stacks and queues, graphs, trees and hash tables.</li> <li>• Solve problem involving graphs, trees and apply different sorting and searching algorithms.</li> </ul>
: CA-204 (A)	Machine Learning	<ul style="list-style-type: none"> <li>• Acquire in-depth knowledge of various facets of Machine Learning methods/techniques and algorithms.</li> <li>• Envisage practical application of Machine Learning to Business and Research Computational problems.</li> <li>• Use knowledge of Machine Learning for product/service development.</li> </ul>
CA-204 (B)	Digital Image Processing & Computer Vision	<ul style="list-style-type: none"> <li>• Develop scientific and strategic approach to solve complex problems in the domain of Computer Graphics and Digital Image Processing; expose students to MATLAB Image Processing Toolbox.</li> <li>• Demonstrate various algorithms for scan conversion and filling of basic primitives objects and their comparative analysis and applied 2-D and 3-D geometric transformations, viewing and clipping on graphical objects.</li> </ul>

		<ul style="list-style-type: none"> <li>• Use the Mathematics for digital image representation, image acquisition, image transformation, image enhancement and restoration.</li> </ul>
CA-205 (B)	Python Programming	<ul style="list-style-type: none"> <li>• Use lists, tuples, dictionaries, strings and files efficiently for solving real world problems. Implement the concepts of object-oriented programming using python.</li> <li>• Develop modules, packages and GUI based programming for web.</li> </ul>
CA LAB-V	LAB on Advanced Software Development Methodologies	<ul style="list-style-type: none"> <li>• Use GitHub and make repository using Git.</li> <li>• Apply agile software development process.</li> <li>• Develop a project using agile methodology.</li> </ul>
CA Lab-IV	LAB on Data Structures and Algorithms	<ul style="list-style-type: none"> <li>• Develop solutions for a range of problems using procedure oriented / object-oriented programming.</li> <li>• Choose the appropriate data structure and algorithm design method for a specified application.</li> <li>• Apply practical knowledge on the applications of data structures.</li> </ul>
CA LAB-VII (A)	LAB on Machine Learning	<ul style="list-style-type: none"> <li>• Understand the implementation procedures for the machine learning algorithms.</li> <li>• Design Java/Python programs for various Learning algorithms.</li> <li>• Apply appropriate data sets to the Machine Learning algorithms.</li> <li>• Identify and apply Machine Learning algorithms to solve real world problems.</li> </ul>
CA LAB-VII (B)	LAB On Digital Image Processing and Computer Vision	<ul style="list-style-type: none"> <li>• Develop scientific and strategic approach to solve complex problems in the domain of Computer Graphics and Digital Image Processing;</li> <li>• Implement various algorithms for scan conversion, filling objects, 2-D and 3-D geometric transformations, viewing and clipping on graphical objects;</li> <li>• Make use of MATLAB and Image Processing Toolbox to implement image transformation, image enhancement in spatial and frequency domain.</li> </ul>
: CA LAB-VIII (A)	LAB on Advanced Java (Technologies)	<ul style="list-style-type: none"> <li>• Step-by-Step procedure for building the project from ground up by using IDE.</li> <li>• Create dynamic web application to utilize the JavaBeans and EJBs reusable components</li> <li>• Create web application using servlets, JSP, Strut and Hibernate technologies.</li> </ul>
CA Lab-V	LAB on Python programming	<ul style="list-style-type: none"> <li>• Demonstrate use and working of various data types, control structures, files, exceptional handling etc.</li> <li>• Create, configure and make use of modules.</li> <li>• Develop console based and GUI applications (both procedural/object oriented) to solve different problems using python programming.</li> </ul>
CA-301	Compiler Construction	<ul style="list-style-type: none"> <li>• Understand the basic structure of compiler, concepts and terminology in programming languages.</li> <li>• Explain lexical analysis, finite state techniques, scanner generator, parsing, kinds of parsers, designing lexical analyzer, scanner and parsers, principal ideas with</li> </ul>

		<p>intermediate code generation, optimizations.</p> <ul style="list-style-type: none"> <li>• Understanding of all concepts is essential to design compiler in general for programming languages.</li> </ul>
CA-302	Design and Analysis of Algorithms	<ul style="list-style-type: none"> <li>• To understand Basics of algorithms, design techniques and analyze the performance.</li> <li>• To learn Searching and traversal algorithms for graphs.</li> <li>• To understand Nondeterministic algorithms and NP class of problem.</li> </ul>
: CA-303	High Performance Computing Paradigms and Applications	<ul style="list-style-type: none"> <li>• Analyze the Cloud computing setup with its vulnerabilities and applications using different architectures.</li> <li>• Design suitable Virtualization concept, Cloud Resource Management.</li> <li>• Assess cloud Storage systems and Cloud security, the risks involved, its impact and develop cloud application.</li> </ul>
CA-304 (A)	Natural Language Processing	<ul style="list-style-type: none"> <li>• Understand issues and challenges in Natural Language Processing and NLP applications and their relevance in the classical and modern context.</li> <li>• Understand Computational techniques and approaches for solving NLP problems and develop modules for NLP tasks and tools.</li> <li>• Understand various grammar formalisms, which they can apply in different fields of study.</li> </ul>
CA-304 (B)	Artificial Intelligence in Practice with Python	<ul style="list-style-type: none"> <li>• Develop practical AI applications with solid understanding of many new AI techniques.</li> <li>• Implement more complex AI algorithms using Python.</li> <li>• Use AI algorithms to create new real world AI applications.</li> </ul>
CA-304 (C)	Data Analytics	<ul style="list-style-type: none"> <li>• Find a meaningful pattern in data; graphically interpret data.</li> <li>• Implement the analytic algorithms.</li> <li>• Handle large scale analytics projects from various domains; Develop intelligent decision support systems.</li> </ul>
CA-305 (A)	Mobile Application Development (Android Programming)	<ul style="list-style-type: none"> <li>• Compare android with other smartphone OS and desktop OS; Able to understand software stack of android OS.</li> <li>• Understand Activity lifecycle, UI management, use Intent, Broadcast receivers and Internet services.</li> <li>• Effectively use SQLite Database and content providers, multimedia, camera and Location based services in Android Application.</li> </ul>
CA-305 (B)	Microsoft .Net Technologies	<ul style="list-style-type: none"> <li>• Design Web applications / Website using ASP.NET.</li> <li>• Use ASP.NET controls in web applications</li> <li>• Debug and deploy ASP.NET web applications.</li> <li>• Create database driven ASP.NET web applications and web services.</li> </ul>
CA-305 (C)	Ruby on Rails	<ul style="list-style-type: none"> <li>• Understand Ruby Programming language with lexical and syntactic structure of Ruby programs, Datatypes and Objects, Expressions and Operators, Statements and Control Structures, Methods, procs, lambdas, and closures, Classes and modules, Reflection and Metaprogramming.</li> <li>• Use the Ruby TK (GUI for Ruby).</li> <li>• Design web applications using Rails framework</li> </ul>

CA Lab-IX	LAB on Design and Analysis of Algorithms	<ul style="list-style-type: none"> <li>• Construct logic for the algorithms designed using designing techniques.</li> <li>• Posterior analysis of the algorithms.</li> <li>• Debug, test and profile the algorithms, modify to improve performance of the algorithms.</li> </ul>
CA LAB-X	Lab on High Performance Computing Paradigms and Applications	<ul style="list-style-type: none"> <li>• Configure cloud infrastructure.</li> <li>• Monitor load on cloud, balance load by analyzing.</li> <li>• Work with real time cloud solutions.</li> </ul>
CA LAB XI(A)	Lab on Natural Language Processing	<ul style="list-style-type: none"> <li>• Idea about installation and use of NLTK in python.</li> <li>• Understanding of implementation of text files procesing operation and Regular Expressions in NLP</li> <li>• Knowledge of implementation of dependency parser, porter stemmer, Morphology, PoS Tagging and other NLP applications</li> </ul>
CA LAB-XI (B)	LAB on AI Practice using Python	<ul style="list-style-type: none"> <li>• Use most common artificial intelligence (AI) use cases in developing AI applications.</li> <li>• Apply various new artificial intelligence techniques in developing AI applications.</li> <li>• Create real-world AI application/s using above AI technique/s.</li> </ul>
CA LAB-XI (C)	Lab on Data Analytics	<ul style="list-style-type: none"> <li>• Develop code using R programming constructs.</li> <li>• Manipulate data using R.</li> <li>• 3) Write code for various data analysis techniques.</li> </ul>
CA LAB-XII (A)	LAB on Android Programming	<ul style="list-style-type: none"> <li>• Design and Implement User Interfaces and Layouts of Android App; Use Intents for activity and broadcasting data in Android App.</li> <li>• Design and Implement Database Application and Content Providers.</li> <li>• Develop Android App with Security features.</li> </ul>
CA LAB-XII (B)	Lab on Microsoft .Net Technologies	<ul style="list-style-type: none"> <li>• Design web site and web applications using ASP.NET</li> <li>• Debug and deploy ASP.NET web applications</li> <li>• Create database driven ASP.NET web applications and web services.</li> </ul>
CA LAB-XII (C)	LAB on Ruby on Rails	<ul style="list-style-type: none"> <li>• Develop program using syntactic structure in ruby.</li> <li>• Build program using APIs of Ruby Programming Language.</li> <li>• Design web applications using Rails framework.</li> </ul>
CA-401	Full Time Industrial Training	<ul style="list-style-type: none"> <li>• Handle specialized technology and update themselves with latest changes in technological world with ability to communicate effectively.</li> <li>• Be multi-skilled IT professional with good technical knowledge, management, leadership and entrepreneurship skills.</li> <li>• Be able to identify, formulate and model problems and find engineering solution based on a systems approach.</li> </ul>

**Master of Computer Application (Integrated) (MCA-Integrated)**

<b>Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
CA 1.1	COMPUTER ESSENTIALS	<ul style="list-style-type: none"> <li>• To understand basics of computer System.</li> <li>• To Understand Data Representation and Basic of Algorithm.</li> <li>• To understand concept and functioning of Operating System</li> <li>• To acquire knowledge of Software &amp; Computer Viruses.</li> <li>• To understand Fundamental of Internet &amp; Advanced Application of Computer System in Real Life.</li> </ul>
CA 1.2	Professional Communication	<ul style="list-style-type: none"> <li>• To demonstrates his verbal and non-verbal communication ability</li> <li>• To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary &amp; Grammar.</li> <li>• To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization.</li> <li>• To draft effective business correspondence with brevity and clarity.</li> <li>• To stimulate their Critical thinking by designing and developing clean and lucid writing skills.</li> </ul>
CA 1.3	Mathematical Foundations in Computer Science-I	<ul style="list-style-type: none"> <li>• Apply mathematical logic to solve problems</li> <li>• Understand sets; apply operations on sets and algebraic structures.</li> <li>• Model and solve real world problems using graphs and trees.</li> <li>• Use mathematical concepts such as relations and functions.</li> <li>• Analyze and understand the mathematical operations on vectors.</li> </ul>
CA 1.4	C Programming	<ul style="list-style-type: none"> <li>• Gain basic knowledge of C language.</li> <li>• Develop logics which will help them to create programs, applications in C programming.</li> <li>• Learn the decision making ability to construct the C Programs.</li> <li>• Apply user defined functions for solving the problem.</li> <li>• Understand the use of structure and union to solve the complex problem.</li> <li>• Analyze problems in different applications and develop logic to implement their solutions</li> </ul>
CA 1.5	Lab on Professional Communication	<ul style="list-style-type: none"> <li>• To demonstrates his verbal and non-verbal communication ability</li> <li>• To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary &amp; Grammar.</li> <li>• To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization.</li> <li>• To draft effective business correspondence with brevity and clarity. CO5: To stimulate their Critical thinking by designing and developing clean and lucid writing skills.</li> </ul>
CA 1.6	Lab on Problem Solving and Algorithmic Thinking-I	<ul style="list-style-type: none"> <li>• Apply and practice logical ability to solve the problems on matrices.</li> </ul>

		<ul style="list-style-type: none"> <li>• Apply and practice different operations on sets.</li> <li>• Demonstrate the use of Strings and string handling functions.</li> <li>• Demonstrate the use of graphs and trees.</li> </ul>
CA 1.7	Lab on C programming	<ul style="list-style-type: none"> <li>• Learn Simple C Program.</li> <li>• Read, understand and trace the execution of programs written in C language</li> <li>• Use the decision making ability for writing a C code for a given Problem.</li> <li>• Develop details understanding of pointers, functions, string functions, arrays, structure, union and file handling.</li> <li>• Learn to develop complex C Programs.</li> </ul>
CA 2.1	Computer Organization & Architecture	<ul style="list-style-type: none"> <li>• Describe the fundamental organization of a computer system.</li> <li>• Understand the basics of instructions sets and their impact on processor design.</li> <li>• Perform computer arithmetic operations and control unit operations.</li> <li>• Understanding of the addressing modes, instruction formats and program control statements.</li> <li>• Measure the performance of CPU, memory and I/O operations.</li> </ul>
CA 2.2	Web Designing	<ul style="list-style-type: none"> <li>• Design the web Pages using HTML / HTML 5 Tags.</li> <li>• Use Hyperlink, Tables in web page.</li> <li>• Use CSS to apply effect to webpage text / Controls.</li> </ul>
CA 2.3	Mathematical Foundations in Computer Science-II	<ul style="list-style-type: none"> <li>• Solve applications involving permutations and combinations.</li> <li>• Analyze statistical data using measures of central tendency, dispersion and location.</li> <li>• Organize, manage and present data using statistics.</li> <li>• Develop and apply problem-solving techniques needed to accurately calculate probabilities</li> <li>• Provide the students with a fundamental understanding of probabilistic methods</li> </ul>
CA 2.4	C++ Programming	<ul style="list-style-type: none"> <li>• Understand the difference between the top-down and bottom-up approach</li> <li>• Describe the object-oriented programming approach in connection with C++</li> <li>• Apply the concepts of object-oriented programming</li> <li>• Illustrate the process of data file manipulations using C++</li> <li>• Apply virtual and pure virtual function &amp; complex programming situations.</li> </ul>
CA 2.5	Lab on Essentials of Web Designing	<ul style="list-style-type: none"> <li>• Design the web Pages using HTML / HTML 5 Tags.</li> <li>• Use Hyperlink, Tables in web page.</li> <li>• Use CSS to apply effect to webpage text / Controls.</li> </ul>
CA 2.6	Lab on Problem Solving and Algorithmic Thinking-II	<ul style="list-style-type: none"> <li>• Apply and demonstrate the concept of Permutation and Combination.</li> <li>• Apply and demonstrate the measure of Central Tendency</li> <li>• Apply and demonstrate the concepts of probability</li> </ul>
CA 2.7	Lab on C++ Programming	<ul style="list-style-type: none"> <li>• To describe the advantages of a high level language like C++, the programming process, and the compilation process.</li> <li>• To describe and use software tools in the programming process.</li> <li>• To apply good programming principles to the design and implementation of C++ programs.</li> <li>• To design, implement, debug and test programs using the fundamental elements of C++.</li> </ul>



		<ul style="list-style-type: none"><li>• To demonstrate an understanding of primitive data types, values, operators and expressions in C++.</li></ul>
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**Second to fifth year's data not available.**

## Bachelor in Computer Application (BCA)

Code	Course Name	Course Outcome
BCA 101	Fundamentals of Accounting	<ul style="list-style-type: none"> <li>• To understand fundamental concepts of financial accounting.</li> <li>• To understand the basics of cost accounting.</li> <li>• To maintain and record financial transactions in books of accounts.</li> <li>• To prepare final accounts of sole proprietary business.</li> <li>• To prepare Cost Sheet and record the transactions of materials.</li> </ul>
BCA 102	Fundamentals of Computer	<ul style="list-style-type: none"> <li>• Acquire the knowledge of fundamentals of Computer and Operating System.</li> <li>• Develop problem solving skill through algorithms and flowcharts.</li> <li>• Understand the basics of computer networking and internet.</li> </ul>
BCA 103	Programming in C - I	<ul style="list-style-type: none"> <li>• Understand the basic concepts of C Programming for problem-solving and illustrate the C data types, syntax and constructs.</li> <li>• Illustrate C for decision making, branching and looping statements</li> <li>• Understand the concept of Array and Strings to solve different problems.</li> </ul>
BCA 104	Web Design - I	<ul style="list-style-type: none"> <li>• Acquainted with elements, Tags and basic structure of HTML files.</li> <li>• Up skills the knowledge of basic and advanced web designing.</li> <li>• Students were implement effective use of List and Tables.</li> <li>• Students were implement effective web page navigation.</li> <li>• Students were capable to design web page layout</li> <li>• Students were understood and implement use of style sheet.</li> </ul>
BCA 105	Lab on Computer Fundamental	<ul style="list-style-type: none"> <li>• Students can able to understand the installation of operating system.</li> <li>• Students can understand basic DOS command, and different browser.</li> <li>• Student understands different platforms, Internet, mails, tables</li> <li>• Students can learn text formatting and table formatting.</li> <li>• Students capable to design power point presentation, tables, shapes, smart arts and charts</li> </ul>
BCA 106	Practical on Web Design - I	<ul style="list-style-type: none"> <li>• Students were able to design consistent look and feel web pages.</li> <li>• Students were capable to use multimedia in web page.</li> <li>• Students were implement effective web page navigation.</li> <li>• Students were capable to design web page layout</li> <li>• Students were implement use of style sheet.</li> </ul>
BCA 107	Lab on C Programming	<ul style="list-style-type: none"> <li>• Students understand the input output functions.</li> <li>• Students can understand the use of various operators. Students can understand the use of control statements. Students can design the various expressions in C</li> <li>• Students can understand the array and its type.</li> </ul>
BCA 201	Professional Communication	<ul style="list-style-type: none"> <li>• To develop his verbal and non-verbal communication ability</li> <li>• To communicate with people effectively and confidently.</li> <li>• To draft effective business correspondence documents.</li> <li>• To make and present well designed and informative presentations</li> </ul>
BCA	Database Management System	<ul style="list-style-type: none"> <li>• Introduction to the basic concepts of database management</li> </ul>

202		<p>systems. Learning to design databases using ER modeling.</p> <ul style="list-style-type: none"> <li>• Learning to apply integrity constraints.</li> <li>• To understand and demonstrate database schema.</li> <li>• Understand and demonstrate Relational databases, SQL.</li> </ul>
BCA 203	Programming in C – II	<ul style="list-style-type: none"> <li>• Apply the concepts of Function modules, its usage</li> <li>• Apply the concepts of memory allocation using Pointers</li> <li>• Understand the concepts of structures and unions: declaration, initialization and implementation.</li> <li>• Learn to draw different graphics objects.</li> <li>• Learn to store and apply the data using files.</li> </ul>
BCA 204	Web Design - II	<ul style="list-style-type: none"> <li>• Student were able to embed JavaScript in web page</li> <li>• Students successfully added interactivity in web page</li> <li>• Students were applied validation on web form</li> <li>• Students were implemented different events.</li> <li>• Students were familiar with bootstrap framework.</li> </ul>
BCA 205	Lab on DBMS	<ul style="list-style-type: none"> <li>• Students can able to create the database.</li> <li>• Students can understand basic database commands.</li> <li>• Students can understand constraint.</li> <li>• Students capable to design SQL using different clause.</li> </ul>
BCA 206	Lab on C Programming - II	<ul style="list-style-type: none"> <li>• Student was able to understand the concept of Function techniques</li> <li>• Students were able to understand the storage classes</li> <li>• Students were able to understand pointer and its uses.</li> <li>• Students were able to design the basic graphics objects</li> <li>• Students understood the operations on file and command line argument.</li> </ul>
BCA 207	Lab on Web Design - II	<ul style="list-style-type: none"> <li>• Student were able to develop web page using JavaScript</li> <li>• Students successfully added interactivity features in web page</li> <li>• Students were implemented validation on web form</li> <li>• Students were implemented different events.</li> <li>• Students were familiar with bootstrap framework.</li> </ul>
BCA 301	Mathematics and Statistics for Managers	<ul style="list-style-type: none"> <li>• To impart the required knowledge of Mathematics and statistics for managerial activities among students.</li> </ul>
BCA 302	Management Information Systems	<ul style="list-style-type: none"> <li>• To impart the knowledge of MIS among students</li> </ul>
BCA 303	JAVA Programming	<ul style="list-style-type: none"> <li>• To impart the knowledge of object oriented programming using java among students.</li> </ul>
BCA 304	LINUX Operating System.	<ul style="list-style-type: none"> <li>• To make students understand the features of Linux operating system</li> <li>• To make students learn the components of Linux</li> <li>• To learn basic Linux commands and printing Linux documents.</li> </ul>
BCA 305	Practical on JAVA.	---
BCA 306	Practical on Linux.	---
BCA 307	Practical on Tally ERP	<ul style="list-style-type: none"> <li>• To practically train students in Accounting using Tally ERP</li> </ul>

BCA 401	Introduction to Information System Audit.	<ul style="list-style-type: none"> <li>To impart the knowledge and importance of Information System and Audit among Students for Quality Management.</li> </ul>
BCA 402	RDBMS	<ul style="list-style-type: none"> <li>To prepare students in using and managing Relational databases and its applications</li> </ul>
BCA 403	C#.NET.	<ul style="list-style-type: none"> <li>To impart the knowledge of object oriented programming using C# among student.</li> </ul>
BCA 404	Data Structure.	<ul style="list-style-type: none"> <li>To impart the knowledge of data structure among student.</li> </ul>
BCA 405	Practical on C#.NET.	<ul style="list-style-type: none"> <li>To practically train students in programming in C#.NET</li> </ul>
BCA 406	Practical on RDBMS.	---
BCA 407	Practical on Data Structures.	<ul style="list-style-type: none"> <li>To practically train students in Data structure using C++</li> </ul>
BCA 501	Entrepreneurship Development	<ul style="list-style-type: none"> <li>To impart the knowledge of Entrepreneurship Development among students.</li> </ul>
BCA 502	Cyber Security	<ul style="list-style-type: none"> <li>To impart the knowledge of Cybercrime and cyber security among students.</li> </ul>
BCA 503	ASP.NET Technology	<ul style="list-style-type: none"> <li>To impart the knowledge of web development in students in by using ASP.NET</li> </ul>
BCA 504	Software Engineering	<ul style="list-style-type: none"> <li>The course has been designed to provide a foundation of systems principles and an understanding of System development.</li> </ul>
BCA 505	Practical on ASP.NET	<ul style="list-style-type: none"> <li>To practically train students in developing web pages using ASP.NET</li> </ul>
BCA 506	Practical on CASE Tool with MS-VISIO and Software Testing	<ul style="list-style-type: none"> <li>To practically train students in using CASE tools for designing real time system diagrams.</li> </ul>
BCA 507	Field work on IT Project Assessment	<ul style="list-style-type: none"> <li>To understand the issues in implemented IT project by assessing it using research methodology.</li> </ul>
BCA 601	e-Commerce & m - Commerce	<ul style="list-style-type: none"> <li>To impart the knowledge of e-Commerce &amp; m - Commerce among students.</li> </ul>
BCA 602	Cloud Computing	<ul style="list-style-type: none"> <li>This course will help the students to get familiar with cloud computing fundamentals, architecture, services, implementation and deployment techniques etc</li> </ul>
BCA 603	Android Application Development	<ul style="list-style-type: none"> <li>The use of mobile communication and android based applications are increasing day by day. It is therefore necessary for students to know that how mobile communication works and how to build mobile apps for android operating system. This course covers the necessary concepts which are required to understand mobile communication and to develop Android Applications</li> </ul>
BCA 604	Server Side Scripting using PHP	<ul style="list-style-type: none"> <li>To impart the knowledge of web development in students in by using PHP</li> </ul>
BCA 605	Practical on Android & PHP	<ul style="list-style-type: none"> <li>To practically train students in developing Mobile application and web pages using PHP</li> </ul>

BCA 606	Practical on Employability Skills	<ul style="list-style-type: none"><li>• To practically train students in developing required employability skills</li></ul>
BCA 607	Project Report & Viva	<ul style="list-style-type: none"><li>• To prepare students to use applications of the theory and practical learned during the course.</li></ul>

## Bachelor in Business Administration (BBA)

Code	Course Name	Course Objectives
A 1.1	Principles of Management	<ul style="list-style-type: none"> <li>To provide a basis of understanding to the students with reference to working of business organization through the process of management.</li> <li>To familiarize the students with the basic Management concept &amp; process</li> </ul>
A 1.2	Principles of Economics	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Principles of Economics.</li> </ul>
A 1.3	Professional Communication-I	<ul style="list-style-type: none"> <li>To impart the basic communication skills among students.</li> <li>To improve the English Language Proficiency of the Students.</li> <li>To develop confidence in Speaking English.</li> </ul>
A 1.4	Fundamentals of Accounting	<ul style="list-style-type: none"> <li>To study the fundamental Accounting concepts, terms, jargons and learn the process of recording of financial transactions in the books of Accounts.</li> <li>To develop the foundation for higher studies in the field of accounting.</li> </ul>
A 1.5	Information Technology for Business	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Information technology &amp; its applications.</li> </ul>
A 1.6	Practical on Professional Communication-I	<ul style="list-style-type: none"> <li>To impart the practical aspects of communication skills among students.</li> <li>To improve the English Language proficiency of the Student</li> <li>To develop confidence in Speaking English.</li> </ul>
A 1.7	Practical on Office Automation	<ul style="list-style-type: none"> <li>To impart practical knowledge &amp; applicability of theoretical concepts with routine examples</li> </ul>
A 2.1	Organizational Behavior	<ul style="list-style-type: none"> <li>To study Human behavior at work</li> <li>To get knowledge of Individual &amp; Interpersonal perspectives</li> <li>To get in depth knowledge of motivation, leadership and organizational change</li> </ul>
A 2.2	Managerial Economics	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Managerial Economics.</li> </ul>
A 2.3	Business Ethics and Corporate Governance	<ul style="list-style-type: none"> <li>The objective of this subject is to make the students more clear about the importance of ethics in business and practices of good corporate governance.</li> </ul>

A 2.4	Financial Accounting and Costing	<ul style="list-style-type: none"> <li>To give the practical knowledge of accounting to the students.</li> <li>To make the students competent in preparation of Accounts for the Business Entities.</li> </ul>
A 2.5	Marketing Management	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Marketing Management.</li> </ul>
A 2.6	Practical on Web Designing & Publishing	<ul style="list-style-type: none"> <li>To understand the basics of web designing with the help of small real life examples.</li> </ul>
A 2.7	Practical on Management- "Learning from Business Leaders"	<ul style="list-style-type: none"> <li>To provide an opportunity to the students to 'learn by example' from great leaders belonging to the business world</li> </ul>
A 3.1	Mathematics and Statistics for Managers	<ul style="list-style-type: none"> <li>To impart the required knowledge of Mathematics and statistics for managerial activities among students</li> </ul>
A 3.2	Corporate Accounting & Costing	<ul style="list-style-type: none"> <li>To give the Basic understanding of Corporate Accounting and Costing.</li> <li>To make familiarize with the knowledge of Issue of shares, Redemption of preference shares and redemption of debentures.</li> <li>To understand how to prepare the cost sheet, store ledger and calculation of Material and Labour remuneration.</li> </ul>
A 3.3	Business & Corporate Laws	<ul style="list-style-type: none"> <li>To acquaint the students with the Fundamental Acts of Business Law such as Contract Act, Sales of Goods Act and Negotiable Instruments.</li> <li>To give the knowledge about Incorporation, Procedures, documentation &amp; Management of company</li> </ul>
A 3.4	Management of Small Scale Industries	<ul style="list-style-type: none"> <li>The objective of this subject is to enable the students to understand various aspects in the management of small scale industrial units.</li> </ul>
A 3.5	Management Information System & ERP	<ul style="list-style-type: none"> <li>To create an awareness of the role of information systems in business and to get an introduction to management information system</li> </ul>
A 3.6	Practical on Management of Small Scale Industries	<ul style="list-style-type: none"> <li>The objective of this subject is to enable the students to understand the practical aspects of working in DIC, MIDC and Banks.</li> </ul>
A 3.7	Practical on Advanced Excel	<ul style="list-style-type: none"> <li>To study the formatting and practical applications of Microsoft Office Excel by using different features.</li> </ul>
A 4.1	Business Research Methods	<ul style="list-style-type: none"> <li>To develop a sound conceptual framework for understanding research in management</li> </ul>
A 4.2	Direct and Indirect Taxes in India	<ul style="list-style-type: none"> <li>Awareness about basic concepts of Total Income Tax Calculations</li> <li>Ability to calculate Income from Salary, House Property and Business/Profession.</li> <li>Basic understanding of indirect taxation including VAT (Sales Tax) and Service Tax and recently adopted GST.</li> </ul>

A 4.3	Human Resource Management	<ul style="list-style-type: none"> <li>The course aims to provide inputs to the students regarding importance of HRM and its concepts, principles and various functions.</li> </ul>
A 4.4	Production and Materials Management	<ul style="list-style-type: none"> <li>To develop understanding of production and materials management</li> </ul>
A 4.5	Financial Management	<ul style="list-style-type: none"> <li>To understand the Concept of Financial Management.</li> <li>To enable the students to acquire necessary skills to deal in Financial and Managerial Techniques</li> </ul>
A 4.6	Practical's on Tally ERP	<ul style="list-style-type: none"> <li>To make the student competent in Business Accounting and Preparation of Financial statement in Tally ERP</li> </ul>
A 4.7	Practical's on Tax Base Software	<ul style="list-style-type: none"> <li>To study how to calculate the tax by using Tax Base Software and use it actual business</li> </ul>
A 5.1	International Business Management	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the International Business Management.</li> </ul>
A 5.2	Entrepreneurship Development	<ul style="list-style-type: none"> <li>To make the student understand the concept &amp; importance of Entrepreneurship and facilitate generation of young entrepreneurs.</li> </ul>
A 5.3	Case Studies in Management	<ul style="list-style-type: none"> <li>To enhance analytical skills of students and to depict thorough knowledge of the subject and develop decision making abilities.</li> <li>To Increase the understanding of what managers should and should not do in guiding a business to success.</li> <li>To identify strategic issues that need to be addressed, evaluating strategic alternatives, and formulating workable plans of action.</li> <li>To gain in-depth exposure to different industries and companies, thereby acquiring something close to actual business experience.</li> </ul>
A 5.4 A	Banking and Insurance	<ul style="list-style-type: none"> <li>To develop the capability of students for knowing banking concepts &amp; operations</li> <li>To give through knowledge of banking operations</li> <li>To introduce the concepts of Life &amp; General Insurance, Transport Travel &amp; Tourism</li> </ul>
A 5.5 A	Capital, Money & Commodity Market	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic and working knowledge of the student about Stock Market, Money Market and Commodity Market</li> </ul>
A5.4 C	Recruitment and Selection	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Human Resource Planning, Designing Jobs, Recruitment process and Induction of Employees in Human Resources Management.</li> </ul>
A 5.5 C	Industrial Relations	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Industrial Relation</li> <li>Know the provisions related the act.</li> <li>Know the laws related to Industrial Disputes and Machinery to resolve it</li> </ul>



A5.6	Practical's on Employability Skills-I	<ul style="list-style-type: none"> <li>To make a final year students capable of obtaining jobs.</li> </ul>
A5.7	Practical's based on e-Commerce	<ul style="list-style-type: none"> <li>To make acquainted the students with Indian e-Commerce industry.</li> </ul>
A6.1	Management of Services	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about Management of Services.</li> </ul>
A6.2	Family Business Management	<ul style="list-style-type: none"> <li>Develop a working knowledge in addressing concerns in management, governance and relational dynamics in family firms.</li> </ul>
A6.3	Cyber Security & Laws	<ul style="list-style-type: none"> <li>To introduce the student with information security, security threats and control</li> <li>To study and understand the basic concepts of cryptography, network security and cyber laws.</li> </ul>
A6.4(A)	Auditing Practices	<ul style="list-style-type: none"> <li>To study the various concept of Audit, Auditing Techniques and tools to the students.</li> <li>To understand the compliance requirement of Auditing &amp; Assurance Standards.</li> <li>To study Auditing procedure of company &amp; other entities and understand the importance of Audit Report.</li> </ul>
A6.5 (A)	Investment Banking	<ul style="list-style-type: none"> <li>To develop the basic and working level knowledge of the students regarding stock market in India and across the world.</li> <li>To provide the knowledge about Issues of Shares , Mechanism and also about Financial and trading Institutions and regulatory body in Stock Market ,Stock Market History in World and In India</li> </ul>
A6.4(C)	Training and Development	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Training and Development in Human Resources Management.</li> </ul>
A6.5(C)	Performance Management	<ul style="list-style-type: none"> <li>The objective of this subject is to develop a basic understanding about the Performance Management of Employees in Human Resources Management.</li> </ul>
A6.6	Practical on Employability Skills-II	<ul style="list-style-type: none"> <li>To make a final year students capable of obtaining jobs.</li> </ul>
A6.7	Project Report based on elective	<ul style="list-style-type: none"> <li>To enhance analytical skills of students and to depict thorough knowledge of the domain subject and develop decision making abilities through study of various types of issues that need to be addressed, evaluating strategic alternatives and formulating remedial plans of action as recommendations.</li> <li>To Increase the understanding of what managers should and should not do in guiding a business to success</li> </ul>

## Bachelor in Management Studies (BMS)

SEM	Subject Name	Course Objective
M 1.1	Principles of Management - I	<ul style="list-style-type: none"> <li>• To Understanding various concepts of Management</li> </ul>
M 1.2	Communication Skill - I	<ul style="list-style-type: none"> <li>• To impart the basic communication skills among students.</li> <li>• To improve the English Language Proficiency of the Students.</li> <li>• To develop confidence in Speaking English.</li> </ul>
M 1.3	Microeconomics	<ul style="list-style-type: none"> <li>• To study various basic economics concepts.</li> </ul>
M 1.4	Fundamentals of Accounting	<ul style="list-style-type: none"> <li>• To study the fundamental Accounting concepts, terms, jargons and learn the process of recording of financial transactions in the books of Accounts.</li> <li>• To develop the foundation for higher studies in the field of accounting.</li> </ul>
M 1.5	Introduction to Marketing	<ul style="list-style-type: none"> <li>• To study and understand the basic concepts of marketing, marketing mix and market segmentation.</li> <li>• To apply knowledge of the key marketing concepts to business situations.</li> <li>• To study and understand the new trends of marketing.</li> </ul>
M 1.6	Fundamentals of Computer	<ul style="list-style-type: none"> <li>• To make students well familiar with computer concepts and Office automation tools.</li> </ul>
M 1.7	Practical on ICT practices	<ul style="list-style-type: none"> <li>• To understand basic term of Information Technology.</li> <li>• To Impart Practical Training on using Internet based applications.</li> </ul>
M 2.1	Principles of Management – II	<ul style="list-style-type: none"> <li>• To Understanding advance concepts of Management.</li> </ul>
M 2.2	Communication Skill – II	<ul style="list-style-type: none"> <li>• To impart the basic communication skills among students.</li> <li>• To improve the English Language Proficiency of the Students.</li> <li>• To develop confidence in Speaking English.</li> </ul>
M 2.3	Macroeconomics	<ul style="list-style-type: none"> <li>• To develop basic understanding about macroeconomics, consumption, investment, inflation and deflation, monetary policy, fiscal policy and Business cycle</li> </ul>
M 2.4	Financial Accounting	<ul style="list-style-type: none"> <li>• To give practical knowledge of accounting to the students.</li> <li>• To make the students competent in preparation of Accounts for the Business Entities.</li> </ul>
M 2.5	Organization Behavior	<ul style="list-style-type: none"> <li>• To prepare students in understanding various traits of Organization Behavior.</li> </ul>
M 2.6	e-commerce & M-Commerce	<ul style="list-style-type: none"> <li>• To understand the basics of electronic commerce and Mobile Commerce.</li> </ul>
M 2.7	Practical on Office Automation	<ul style="list-style-type: none"> <li>• To understand terms and familiar with MS-Office suite.</li> </ul>
M 3.1	Mathematics for Management	<ul style="list-style-type: none"> <li>• To impart the required knowledge of Mathematics for managerial activities among students.</li> </ul>

M 3.2	Business Ethics	•
M 3.3	Indian Economy	•
M 3.4	Cost Accounting	•
M 3.5	Business Law	•
M 3.6	CRM & Digital Marketing	• To aware the students with the concepts of customer relationship management and digital marketing
M 3.7	Tally ERP	•
M 4.1	Business Statistics	• To impart the required knowledge of statistics for managerial activities among students.
M 4.2	Human Resource Management	• The course aims to provide inputs to the students regarding basic concepts of HRM and its importance and functions.
M 4.3	Banking and Insurance	•
M 4.4	Taxation	•
M 4.5	Company Law	•
M 4.6	Research Methodology	•
M 4.7	Practical on Taxation software	• To study how to calculate the tax by using Tax base software.
M 5.1	Management Information System	• To develop the knowledge about process of MIS and its application to the business for decision making process
M 5.2	Entrepreneurship Development	•
M 5.3	Cyber Law & Security	• To introduce the student with information security, security threats and control. • To study and understand the basic concepts of cryptography, network security and cyber laws.
M 5.4	Corporate Accounting	•
M 5.5(A)	M5.5 (A)Financial Management	•
M 5.6(A)	M5.6 (A)Financial Services and Instruments	•
M 5.7(A)	M5.7 (A)Stock Market and Institution	•
M 5.5(B)	M5.5 (B) Introduction to Marketing Research	•
M 5.6(B)	M5.6 (B) Consumer Behavior	•
M 5.7(B)	M5.7 (B) Services Marketing	•
M 5.6(C)	M5.5 (C) Industrial Relation & Trade Union	•
M 5.6(C)	M5.6 (C) Labor welfare and Administration	•
M 5.7(C)	M5.7 (C) Labor Laws	•
M 6.1	M6.1 Services Management	•
M 6.2	M6.2 Project Management	•
M 6.3	M6.3 Indian Financial System	•
M 6.4	M6.4 Auditing	•

M 6.5(A)	M6.5 (A)Security Analysis	•
M6.6(A)	M6.6 (A) International Financial Management	•
M6.5(B)	M6.5 (B)Sales and Distribution Management	•
M6.6(B)	M6.6 (B)Advertising & sales promotion	•
M6.5(C)	M6.5 (C) Changing trends in HRM	•
M6.6(C)	M6.6 (C) Performance Management	•
M6.7	M6.7 Project Report	•

*\*NA – Course objectives are not available on University website.*