DAHIWADI COLLEGE DAHIWADI
Department of Computer Application (BCA)

Programme Outcomes (POs)

Upon completion of the BCA programme, students will be able to:

PO1	Use and apply current technical concepts and practices in the core computer applications.
PO2	Identify computer application related problems, analyze them and design the system or provide the solution for the problem considering legal, ethical and societal issues.
PO3	Recognize the need for and an ability to engage in continuing professional development.
PO4	Work and communicate effectively in interdisciplinary environment, either independently or in team, and demonstrate scientific leadership in academia and industry.
PO5	Communicate effectively by oral, written, computing and graphical means.

Programme Specific Outcomes (PSOs)

Students will be able to attain the following program specific outcomes:-

PSO1	Develop competence in basic technical subjects in computer applications like Programming Languages, Data Structures, Databases, Operating Systems, Software Engineering.
PSO2	Identify, analyze, formulate and develop computer applications.
PSO3	Map real life scenarios to various theoretical optimal solutions.
PSO4	Provide simplest automated solutions to various legacy systems.
PSO5	Use modern computing tools and techniques with confidence.
PSO6	Work professionally with positive attitude as an individual or in multidisciplinary teams and communicate effectively.
PSO7	Appreciate the importance of goal setting and to recognize the need for life-long learning.

Programme Course Outcomes (COs)

BCA 101 Fundamentals of Computer
On successful completion of this course, the students will be able to

CO1	Master the binary and hexadecimal number systems including computer arithmetic,
CO2	Be familiar with the history and development of modern computers,
CO3	Understand the fundamentals of different instruction set architectures and their relationship to the CPU design.
CO4	Understand the principles and the implementation of computer arithmetic.

BCA 102 Programming in C part- I
Upon successful completion of this course, students will be able to

CO1	Understand the basic terminology used in computer programming
CO2	Write, compile and debug programs in C language.
CO3	Use different data types in a computer program.
CO4	Design programs involving decision structures, loops and functions.
CO5	Explain the difference between call by value and call by reference
CO6	Understand the dynamics of memory by the use of pointers and Structures.
CO7	Use different data structures and create/update basic data files.

BCA 103 Principles of Management
Upon successful completion of this course, students will be able to

| CO1 | Demonstrate understanding of human behaviour in organizations and the management of human resources. |
| CO2 | Demonstrate ability to perform managerial tasks involving strategic and cross-functional issues in complex organizations. |

BCA 104 Financial Accounting
Upon successful completion of this course, students will be able to

CO1	Develop and understand the nature and purpose of financial statements in relationship to decision making.
CO2	Develop the ability to use the fundamental accounting equation to analyze the effect of business transactions on an organization's accounting records and financial statements.
CO3	Develop the ability to use a basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems.
CO4	Develop the ability to use accounting concepts, principles, and frameworks to analyze and effectively communicate information to a variety of audiences.

BCA 105 Office Management and Communication
Upon successful completion of this course, students will be able to

CO1	Mastering the art of a professional business presentation
CO2	Distinguishing different communication process and its practical application
CO3	More effective written communication

BCA 201 Software Package
Upon successful completion of this course, students will be able to

CO1	Recognize when to use each of the Microsoft Office programs to create professional business documents.
CO2	Use Microsoft Office programs to create personal and/or business documents following current professional and/or industry standards.
CO3	Pursue future courses specializing in one or more of the programs.

BCA 202 Programming in C part- II
Upon successful completion of this course, students will be able to

CO1	Understand the basic concept of C Programming, and its different modules that includes conditional and looping expressions, Arrays, Strings, Functions, Pointers, Structures and File programming.
CO2	Acquire knowledge about the basic concept of writing a program.
CO3	Role of constants, variables, identifiers, operators, type conversion and other building blocks of C Language.
CO4	Use of conditional expressions and looping statements to solve problems associated with conditions and repetitions.
CO5	Role of Functions involving the idea of modularity.

BCA 203 Bank Management
Upon successful completion of this course, students will be able to

CO1	Advanced knowledge of financial concepts and an understanding of portfolio management.
CO2	Students will also be proficient in fixed-income security valuation, fixed-income portfolio management, the concept of duration and convexity, and different fixed-income instruments, such as government bonds, corporate bonds, municipal bonds, convertible and callable bonds, etc.
CO3	A thorough understanding of derivative instruments (options, futures, and swaps) and their characteristics, such as payoffs, profit structures, multiple instrument strategies, and applications.
CO4	A good understanding of international investing strategies, foreign currency risk and currency risk management using derivative products, foreign country interest rate risk management, including the importance of political risk and expropriation risk considerations.

BCA 204 Financial Accounting with Tally
Upon successful completion of this course, students will be able to

CO1	Understand the financial statement and analysis
CO2	Able to learn the Ledgers-All accounting voucher types.
CO3	Understand to prepaid Profit & Loss account, Ratio analysis Trial Balance.-Accounts books.
CO4	Apply the process of Stock Items-All inventory voucher types
CO5	To have experience design a Dynamic-Report.

BCA 205 Principles of Marketing
Upon successful completion of this course, students will be able to

CO1	Demonstrate understanding of the key marketing concepts, marketing's role in strategic planning to create and deliver consumer value.
CO2	Demonstrate understanding of the micro environmental and macro environmental forces that affect the firm's ability to serve its customers.

BCA 301 Cost Accounting

Upon successful completion of this course, students will be able to

CO1	Express the place and role of cost accounting in the modern economic environment,
CO2	Select the costs according to their impact on business,
CO3	Differentiate methods of schedule costs per unit of production,
CO4	Differentiate methods of calculating stock consumption,
CO5	Interpret the impact of the selected costs method, 6. Identify the specifics of different costing methods,

BCA 302 Human Resource Management

Upon successful completion of this course, students will be able to

CO1	Describe trends in the labor force composition and how they impact human resource management practice.
CO2	Discuss how to strategically plan for the human resources needed to meet organizational goals and objectives.
CO3	Define the process of job analysis and discuss its importance as a foundation for human resource management practice.
CO4	Explain how legislation impacts human resource management practice.
CO5	Compare and contrast methods used for selection and placement of human resources.

BCA 303 System Analysis and Design

Upon successful completion of this course, students will be able to

CO1	Develop the software projects or prototypes by understanding the requirements.
CO2	Meet the project deadlines along with the number of resources and type of tasks to be carried out.

BCA 304 Object Oriented Programming with C++

Upon successful completion of this course, students will be able to

CO1	Apply object-oriented programming features to program design and implementation
CO2	Understand object-oriented concepts and how they are supported by C++
CO3	Understand implementation issues related to object-oriented techniques.
CO4	Demonstrate the ability to analyze, use, and create functions, classes, to overload operators.
CO5	Demonstrate the ability to understand and use inheritance and Pointers when creating or using classes and create templates

BCA 305 Computer Oriented Statistical Methods

Upon successful completion of this course, students will be able to

CO1	Evaluate the probabilities and conditional probabilities.
CO2	Evaluate expectations and conditional expectations of random variables.
CO3	Approximate the distribution of sum of random variables using CLT.
CO4	Construct point estimators using the method of maximum likelihood.

CO5	Calculate the number of samples needed to construct confidence levels on the mean and variance of a normal distribution.
CO6	Use linear regression analysis to develop an empirical model of experimental data.

BCA 401 Entrepreneurship Developments
Upon successful completion of this course, students will be able to

CO1	Have the ability to discern distinct entrepreneurial traits
CO2	Know the parameters to assess opportunities and constraints for new business ideas
CO3	Understand the systematic process to select and screen a business idea
CO4	Design strategies for successful implementation of ideas
CO5	Write a business plan

BCA 402 Organizational Behaviors
Upon successful completion of this course, students will be able to

CO1	Analyze individual and group behaviour, and understand the implications of organizational behaviour on the process of management.
CO2	Identify different motivational theories and evaluate motivational strategies used in a variety of organizational settings.
CO3	Evaluate the appropriateness of various leadership styles and conflict management strategies used in organizations.
CO4	Describe and assess the basic design elements of organizational structure and evaluate their impact on employees.
CO5	Explain how organizational change and culture affect working relationships within organizations.

BCA 403 DBMS using MS-Access
Upon successful completion of this course, students will be able to

CO1	To analyze Data Base design methodology
CO2	Acquire knowledge in fundamentals of Data Base Management System.
CO3	Be able to analyze the difference between traditional file system and DBMS.
CO4	Able to handle with different Data Base languages.
CO5	Draw various data models for Data Base and Write queries mathematically.

BCA 404 Web Technology
Upon successful completion of this course, students will be able to

CO1	Understand, analyze and apply the role of languages like HTML, DHTML, CSS, XML, JavaScript, VBScript, ASP, PHP and protocols in the workings of the web and web applications.
CO2	Analyze a web project and identify its elements and attributes in comparison to traditional projects.
CO3	Understand, analyze and create web pages using HTML, DHTML and Cascading Styles sheets.
CO4	Understand, analyze and build dynamic web pages using JavaScript and VBScript (client side programming).

CO5	Understand, analyze and build interactive web applications.
CO6	Understand, analyze and build web applications using PHP.
CO7	Understand, analyze and create XML documents and XML Schema.

BCA 405 Computer Mathematics
Upon successful completion of this course, students will be able to

CO1	Students would be able to understand the theories and principles of linear algebra
CO2	Students would be able apply their knowledge by solving mathematical problems

BCA 505 Management Accounting
Upon successful completion of this course, students will be able to

CO1	Understand the role of accounting and its limitations.
CO2	Prepare financial statements in accordance with Generally Accepted Accounting Principles.
CO3	Demonstrate knowledge of each step in the accounting cycle
CO4	Support at a basic level the recording and reporting of financial information for business
CO5	Demonstrate an understanding the tally in accounts

BCA 502 E-Commerce
Upon successful completion of this course, students will be able to

CO1	Define and analyze the principles of E-commerce and basics of World Wide Web.
CO2	Define and analyze the concept of electronic data interchange and its legal, social and technical aspects.
CO3	Define and analyze the security issues over the web, the available solutions and future aspects of e-commerce security.
CO4	Define and analyze the concept of E-banking, electronic payment system.

BCA 503 Computer Network
Upon successful completion of this course, students will be able to

CO1	Define, use and implement Computer Networks and the basic components of a Network system.
CO2	Know and Apply pieces of hardware and software to make networks more efficient, faster, more secure, easier to use, able to transmit several simultaneous messages, and able to interconnect with other networks.
CO3	Differentiate the various types of network configurations and applying them to meet the changing and challenging networking needs of organizations.
CO4	Understand the layers of OSI and TCP and get knowledge about congestion control and network security
CO5	Define the different protocols, software, and network architectures.
CO6	Define the concept of local area networks, their topologies, protocols and applications.

CO7	Analyze why networks need security and control, what errors might occur, and how to control network errors.

BCA 504 RDBMS with Oracle

Upon successful completion of this course, students will be able to

CO1	Brief knowledge about SQL Fundamentals.
CO2	Unary & Binary table operations.
CO3	Able to handle with different Data Base languages.
CO4	Table View, Log & Triggers.
CO5	Introduction to different Database packages(Oracle/ MySql/ DB2/ etc) Commit & Rollback.
CO6	Handling online Transactions.
CO7	Database connectivity with front-end.

BCA 505 Visual Programming

Upon successful completion of this course, students will be able to

CO1	Design, create, build, and debug Visual Basic applications.
CO2	Explore Visual Basic's Integrated Development Environment (IDE).
CO3	Implement syntax rules in Visual Basic programs.
CO4	Explain variables and data types used in program development.
CO5	Apply arithmetic operations for displaying numeric output.
CO6	Write and apply decision structures for determining different operations.
CO7	Write and apply loop structures to perform repetitive tasks.
CO8	Write and apply procedures, sub-procedures, and functions to create manageable code.

BCA 601 Strategic Management

Upon successful completion of this course, students will be able to

CO1	Critically analyse the internal and external environments in which businesses operate and assess their significance for strategic planning.
CO2	Apply understanding of the theories, concepts and tools that support strategic management in organizations.
CO3	Individually and collaboratively evaluate and synthesise information and existing knowledge from numerous sources and experiences.
CO4	Apply appropriate tools, theories and concepts to analyse strategic issues in organizations and to develop strategies for implementation.
CO5	Participate constructively in team situations to complete shared tasks and meet agreed deadlines.

BCA 602 Data Mining and Data Warehousing

Upon successful completion of this course, students will be able to

CO1	Understand the data extraction and transformation techniques.
CO2	List the association rule mining techniques and understand association mining to correlation analysis, constraint based association mining.
CO3	Understand operational database, warehousing and multidimensional need

	of data base to meet industrial needs.
CO4	Understand the components of warehousing, classification methods and clustering analysis.
CO5	Identify and understand the Business analysis, query tools and application, OLAP etc.

BCA 603 Linux Operating System
Upon successful completion of this course, students will be able to

CO1	Work confidently in Unix/Linux environment
CO2	Write shell scripts to automate various tasks
CO3	Master the basics of linux administration
CO4	Scripts and programs will be accompanied by printed output demonstrating completion of a test plan.
CO5	Testing will demonstrate both black and glass box testing strategies.

BCA 604 Java Programming
Upon successful completion of this course, students will be able to

CO1	Understanding of the principles and practice of object oriented analysis and design in the construction of robust, maintainable programs which satisfy their requirements;
CO2	Ability to implement, compile, test and run Java programs comprising more than one class, to address a particular software problem.
CO3	Demonstrate the principles of object oriented programming;
CO4	Demonstrate the ability to use simple data structures like arrays in a Java program.
CO5	Understand the concept of package, interface, multithreading and File handling in java.
CO6	Ability to make use of members of classes found in the Java API (such as the Math class).