PROGRAM: BACHELOR OF COMPUTER APPLICATION (B.C.A.)

PROGRAM OUTCOMES

PO1: An ability to apply knowledge of mathematics, CS & management in practice.

PO2: An ability to enhance not only comprehensive understanding of the theory but its applications in diverse field.

PO3: The program prepares the young professionals for a range of computer applications in various areas like programming, web development, database management systems and project development.

PO4: To provide thorough understanding of nature, scope and applications in computer and related fields.

COURSE OUTCOMES

FIRST YEAR BACHELOR OF COMPUTER APPLICATION

Course: Problem solving and Programming Concepts

After completion of the course, the students will be able to:

CO1 : Understanding different Generations of Programming Languages & analyse the strengths & weaknesses of each Generation of Programming Language & the flow of Programming Life Cycle.

CO2 : Ability to design solutions to the problems using algorithms & represent algorithm in graphical notation

CO3 : Identify the errors & learning correction skills & understand the need for documentation

CO4 : Applying different programming constructs

Course: Problem Solving & Programming Lab

After completion of the course, the students will be able to

CO 1 : Understanding program development environments & basic programming constructs

CO 2 : Analyse the use of different looping structures

CO 3 : Implement the concept of modular programming

CO 4 : Use of String Manipulation FunctionsLanguage.

Course: Computer Organization and Architecture

After completion of the course, the students will be able to

CO 1 : Understand the basic design of a computer, its structure and organization.

CO 2 : Understand the fundamentals of different instruction set architectures.

CO 3 : Understand the principles and the implementation of computer arithmetic.

CO 4 : Understand the I/O devices and subsystem.

CO 5 : Learn the memory hierarchy subsystem and functioning of the control unit.

Course: Basic Mathematics

CO 1: Student will be well equip with the basic conceptual knowledge in mathematics and its application to commerce and industry

CO 2: Student will acquire the required knowledge for economic and economic related activity

Course: Business Accounting

After completion of the course, the students will be able to:

CO 1 : Understand and explain basic accounting terms and financial statements.

CO 2 : Compute and evaluate recording procedure of financial business accounts.

CO 3 : Examine and interpret various depreciation methods in financial accounting

CO 4 : Interpret and evaluate financial performance of business through final accounts.

Course: Data Structures

After completion of the course, the students will be able to

CO 1 : Ability to summarize searching and sorting techniques

CO 2 : Implement ADTs such as lists, graphs, search trees in C to solve real life problems

CO 3 : Ability to analyze the time and space complexities of Algorithms combinations.

CO 4 : Ability to choose appropriate data structures to represent data items in real world problems.

Course: Operating System Concepts

After completion of the course, the students will be able to

CO 1: To understand the services provided by and the design of an operating system.

CO 2: To understand the structure and organization of the file system.

CO 3: To understand what a process is and how processes are synchronized and scheduled.

CO 4: To understand different approaches to memory management.

Course: Applied Mathematics

CO 1: Learner will acquire the basic knowledge of mathematics and its applications in the field of commerce and industry.

CO 2: Students will learn and understand the wide ranging applications of mathematical techniques to commerce, economics and practical situations.

Course: Data Structures Lab

After completion of the course, the students will be able to

CO 1: Able to design and analyze various sorting & searching techniques.

CO 2: Implement the appropriate data structure for given problem·

CO 3: Creating Binary Search Trees & Graphs

SECOND YEAR BACHELOR OF COMPUTER APPLICATION

Course: Object Oriented Concepts

After completion of the course, the students will be able to

CO 1: Students will be able to understand the principles of data abstraction, inheritance and Polymorphism.

CO 2: Students will be able to apply Principles of virtual base classes, Abstract classes, method overloading, method overriding, Java vectors and collections.

CO 3: Students will be able to analyze and handle different Java packages, sub packages and classes and also evaluate the input/output functions and to introduce exception handling.

CO 4: Students will be able to use overloading methodology on methods and constructors to develop various programs.

Course: Object Oriented Laboratory

After completion of the course, the students will be able to

CO 1: Students will be able to use object oriented programming concepts to solve real world problems and understand the concept of class and objects with access control to represent real world entities.

CO 2: Students will be able to demonstrate the behavior of programs involving the basic programming constructs like control structures, constructors, string handling and garbage collection and also describe the concepts of inheritance and abstract classes to define generic classes.

CO 3: Students will be able to demonstrate the implementation of inheritance by using extend keyword and also the user defined exceptions by exception handling.

CO 4: Students will be able to understand the impact of exception handling to avoid abnormal termination of program using checked and unchecked exceptions and demonstrate various collection and vector classes.

Course : Database Managements Systems (CAC 110)

After completion of the course, the students will be able to

CO 1: To understand and learn database concepts and data models.

CO 2: To learn DDL and DML (SQL concepts).

CO 3: To learn and design the database for an enterprise.

CO 4: To learn how to organize, maintain & retrieve data effectively & efficiently.

Course : Database Managements Systems Lab(CAC 112)

After completion of the course, the students will be able to

CO 1: Designing and conceptualizing a relational data model.

CO 2: Implementing the relational database concepts through some DBMS package.

CO 3: Managing users and access control to data.

CO4 : Using a DBMS package as a backend tool for an application.

Course: Communication and Presentation skills

After completion of the course, the students will be able to

CO 1: Students will understand the concept of Communication and presentations

CO 2: Students will be able to modify methods and techniques of communication to become more effective communicators

CO 3: Students will identify the barriers of communication and design effective gateways to communication.

CO 4: Students will be able to organize subject matter and create meaningful and impactful presentations.

Course: Human Resource Management

After completion of the course, the students will be able to:

CO 1 : Understand and gain an insight into their involvement of HRM in an organization.

CO 2 : Understand and evaluate the sources and policies for recruitment and selection in an organization.

CO 3 : Understand and examine the types, benefits and importance of various methods employed in an organization.

CO 4 : Interpret and explain the importance of business presentations, interpersonal skills, time management and good communication in a company surrounding.

Course: Software Engineering

After completion of the course, the students will be able to

CO 1 : Students will be able to identify and relate to various phases of a project in lifecycle.

CO 2: Students will be able to choose appropriate process model based on the user requirements, type of project and organization .

CO 3: Students will be able to correlate various processes used in all the phases of the product.

Course : Data Communications

After completion of the course, the students will be able to:

CO 1 : To learn and understand fundamentals of data communications

CO 2 : To understand the conceptual and analytical differences between analog and digital communication.

CO 3 : To understand the network layered architecture and the protocol stack.

CO 4 : To learn and understand computer networking essentials.

Course: User Interface design laboratory

After completion of the course, the students will be able to:

CO1 : Identify the target audience and design better User interface.

CO2 : sketch a series of graphical user interfaces.

CO3 : Design and implement web interfaces.

Course: Technical writing skills

After completion of the course, the students will be able to

CO 1 : Students will be able to identify the skills of technical writing.

CO 2 : Students will understand the various categories of technical writing.

CO 3 : Students will plan and design effective letters and applications.

Course: Digital Marketing Fundamentals

After completion of the course, the students will be able to

CO 1 : To acquaint the students with basic principles and concepts of digital marketing & advertising

CO 2 : To understand and familiarize the students with the concept of Digital Marketing techniques like Adwords, search advertising, display advertising.

CO 3 : To understand the concept of Search Engine Optimization (SEO)

THIRD YEAR BACHELOR OF COMPUTER APPLICATION

Course: Web Technology

After completion of the course, the students will be able to:

CO 1 : Learn fundamental concepts, technologies and tools in web technologies.

CO 2 : Learn frontend development tools for creating web pages.

CO 3 : Learn client side and server side scripting

CO 4 : Learn to design, deploy and host a complete functional web site.

Course: Web Technology Laboratory

After completion of the course, the students will be able to:

CO 1 : To teach web page creation and scripting

CO 2 : To implement web tools to create web applications

CO 3 : To learn client side and server side scripting

Course: Information Systems (CAC 118)

After completion of the course, the students will be able to

CO 1 : To provide awareness and appreciation of MIS and to understand the need of MIS in organizations.

CO 2 : To develop an in-depth understanding of essential components comprising management information systems.

CO 3 : To understand the role of MIS in effective decision making.

Course: Mobile Application Development

After completion of the course, the students will be able to

CO 1 : To understand system requirements for mobile applications

CO 2 : To learn the fundamentals of Android OS

CO 3 : To learn to debug programs running on mobile devices

Course : Human Computer Interaction

After completion of the course, the students will be able to

CO 1 : Students will gain knowledge and know, what are interactive designs, and what is HCI, they will also gain knowledge of different evaluation techniques.

CO 2 : The concept of usability, user centred design, and user experience will be cleared

CO 3 : They can identify and decide which evaluation technique to use

CO 4: They will gain skills to design different types of prototypes and storyboards

Course: Multimedia Technology

After completion of the course, the students will be able to:

CO 1: Use multimedia applications and user interface for effective animations.

CO 2: Implement various Compression and decompression techniques for various file formats.

CO 3: Identify and describe the function of the general skill sets in the multimedia industry.

CO 4: Identify the basic components of a multimedia project.

Course: Multimedia Technology Laboratory

After completion of the course, the students will be able to:

CO 1: Understand how to generate line, circle and ellipse also how to create 2D object and various transformation techniques.

CO 2: Understand various 3D Transformation techniques and multimedia compression techniques and applications.

CO 3: Apply various concepts associated with graphics to develop the animated game.

Course : E-commerce Applications

After completion of the course, the students will be able to:

CO 1 : To develop an understanding of web based E-Commerce

CO 2 : To equip students to assess e-commerce requirements of a business.

CO 3 : To enable students to develop e-business plans and e-commerce applications.

Course: Computer Animation

After completion of the course, the students will be able to

CO 1 : Familiarize with various approaches, methods and techniques of Animation Technology.

CO 2 : Study the basics of color theory and graphics.

CO 3 : Master traditional & digital tools to produce stills and moving images.