

NAME OF THE DEPARTMENT	COMPUTER APPLICATIONS	
PROGRAMME CODE AND PROGRAMME NAME	BCA	
		BCA1B01 Computer Fundamentals & HTML
	CO.1.	To equip the students with the fundamentals of computer
	CO.2.	To learn the basics of computer organization
	CO.3.	To equip the students to write algorithm and flow chart for solving simple problems
	CO.4.	To learn the basics of Internet and webpage design
	CO.5	To understand the concept of Boolean algebra and number systems
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To get a general understanding of the various types of memory
	CO.7.	To learn the basics of hardware components
	CO.8.	To learn the types of computer languages and translators
	CO.9.	To be able to do conversions from one number system to another
	CO 10.	To learn the basics of HTML and CSS page design
		BCA1C01- Mathematical Foundations for Computer Applications
	CO.1.	To learn basic principles of linear algebra
	CO.2.	To learn the basic principles of differential and integral Calculus
	CO.3.	To learn mathematical modeling using ordinary and partial equations
	CO.4.	To learn basic principles of differential calculus
	CO.5.	To learn basic principles of integral calculus
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn the concept of ordinary differential equations
	CO.7.	To learn the concept of definite integrals
	CO.8.	To learn the concept of matrix
	CO.9.	To learn the concept of rank and linear independence
	CO.10.	To learn the concept of inverse of a matrix
		BCA1CO2-Discrete Mathematics
	CO.1.	To learn mathematical logic
	CO.2.	To learn Boolean algebra
	CO.3.	To learn concept of set theory
	CO.4.	To learn idea of relation

	CO.5.	To learn types of relations
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To know algebra of circuits and its applications
	CO.7.	To learn concept of graph theory
	CO.8.	To learn different types of graphs.
	CO.9.	To learn the concept isomorphism on graphs.
	CO.10.	To know the concept of tree and its properties
		BCA2B02 Problem Solving Using C
	CO.1.	To equip the students with the fundamental principles of problem solving concepts
	CO.2.	To learn the concept of programming
	CO.3.	To study C language
	CO.4.	To equip the students to write programs for solving simple computing problems
	CO.5	To familiarize with integrated development environment
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn the various C operators and library functions
	CO.7.	To understand decision making and flow of control in C
	CO.8.	To learn the concept of pointers
	CO.9.	To be able to create simple files and process them
	CO 10.	To learn the concept of user-defined functions
		BCA2B03-Programming Laboratory I:Programming in C & HTML
	CO.1.	To make the students learn programming environments
	CO.2.	To practice procedural programming concepts.
	CO.3.	To make the students equipped to solve mathematical or scientific problems using C
	CO.4.	To learn how to implement various data structures.
	CO.5	To provide opportunity to students to use data structures to solve real life problems
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn to find the factorial of a number using C
	CO.7.	To learn to replace a part of the string with another string
	CO.8.	To learn to find the sum of digits and reverse of a number using C
	CO.9.	To learn to design a page to display the BSc Computer Science syllabus by using the List tag.
	CO 10.	To learn to create HTML pages using HYPERLINKS

		BCA2C03- Financial & Management Accounting
	CO.1.	Introduction on accounting and its general application.
	CO.2.	Briefly explain the Problem solving in journal, subdivision of journal, ledger and cash book.
	CO.3.	Explain the concept and problem solving in financial statement i.e., Trading and profit and loss account and balance sheet
	CO.4.	Understanding on various tools for financial statement analysis.
	CO.5	Explain the idea and problems solve in marginal costing.
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	Understanding the concept of standard costing problems solve in material, labour and overheads.
	CO.7.	Explain the theme of budgeting and problems solve in budget.
	CO.8.	To learn the concept of ratio analysis.
	CO.9.	To learn the concept of invitation to management accounting.
	CO 10.	To learn the concept of fund flow statement.
		BCA2C04-Operations research
	CO.1.	To get a general introduction in solving linear programming problems
	CO.2.	To get methods for solving linear system of equations
	CO.3.	To get general understanding of network analysis technique
	CO.4.	To get general understanding of mathematical models
	CO.5	To know the advantages and usage of mathematical models
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To know the concept of assignment problems
	CO.7.	To know the concept of assignment problems.
	CO.8.	To know the concept of network scheduling
	CO.9.	To know advantages of network scheduling
	CO 10.	To know the idea of sequencing problems
		A11- Python Programming
	CO.1.	Understand various statements, data types and functions in Python
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.2.	Develop programs in Python programming language

	CO.3.	Understand the basics of Object-oriented programming using Python
		A12 - Sensors and Transducers
	CO.1.	Explain resistance, inductance and capacitance transducers
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.2.	Perceive the concepts of temperature and pressure transducers
	CO.3.	Perceive the concepts level transducers such as and flow transducers
	CO.4.	Explain Electromagnetic transducers and radiation sensors
	CO.5	Explain force and torque transducers and sound transducers
		BCA3B04-Data Structures Using C
	CO.1.	To introduce the concept of data structures
	CO.2.	To make the students aware of various data structures
	CO.3.	To equip the students implement fundamental data structures
	CO.4.	To get a general understanding of algorithms complexity and asymptotic notations
	CO.5.	To understand various string operations
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To get a general understanding of arrays and operations on arrays
	CO.7.	To learn the basic concepts of stacks and queues and operations done
	CO.8.	To understand the various types of trees and tree traversals
	CO.9.	To be able to write programs so that students can use data structures to solve real life problems
	CO.10.	To make the students equipped to solve mathematical or scientific problems using C

		BCA3C05- Computer Oriented Numerical And Statistical Methods
	CO.1.	To learn floating point arithmetic
	CO.2.	To learn how to solve linear equations
	CO.3.	To learn numerical differentiation.
	CO.4.	To learn numerical integration.
	CO.5.	To learn the basis of statistics.
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn the basis of probability theory
	CO.7.	To learn the idea of random variables
	CO.8.	To learn types of random variables
	CO.9.	To get an idea about comparison between correlation and regression
	CO.10.	To get an idea about curve fitting
		BCA3C06-Theory of Computation
	CO.1.	To get a general introduction to grammar
	CO.2.	To get a general understanding of languages
	CO.3.	To get a general understanding of the theory of computation
	CO.4.	To learn concept of automata
	CO.5.	To learn concept of Turing machine
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn concept of sets

	CO.7.	To learn the concept of relations
	CO.8.	To learn the concept of induction
	CO.9.	To learn the concept of push down automata
	CO.10.	To learn the concept of regular sets
		A13– Data Communication and Optical Fibers
	CO.1.	To understand basis of networks and transmission media
	CO.2.	To learn multiplexing and its application including GSM
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.3.	To learn data link control and switching techniques
	CO.4.	To understand fiber optical transmission
		A14 - Microprocessors Architecture and Programming
	CO.1.	To understand internals of Microprocessor
	CO.2.	To learn architecture of 8085 Microprocessor
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.3.	To learn instruction set of 8085 Microprocessor
	CO.4.	To learn how to program a Microprocessor
		BCA4B05-Database Management System & RDBMS

	CO.1.	To learn the basic concept of database system concepts
	CO.2.	To learn the database administrator
	CO.3.	To get the basic of entity relationship model
	CO.4.	To get the basic of relational data models and their relations
	CO.5.	To knowledge the relational database design
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To get relations and key
	CO.7.	To understand sql concepts
	CO.8.	To learn sql commands, logical operators, and functions
	CO.9.	Realize transaction management
	CO.10.	To learn concurrency control
		BCA4B06-Programming Laboratory II:Data Structures &RDBMS
	CO.1.	To make the students equipped to solve mathematical or scientific problems using C
	CO.2.	To provide opportunity to students to use data structures to solve real life problems
	CO.3.	To learn how to implement various data structures
	CO.4.	To learn how to sort a list of strings
	CO.5.	To learn how to implement stacks using arrays and do stack operations
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn how to sort a singly linked list
	CO.7.	To learn how to create data bases
	CO.8.	To learn how to use query tools
	CO.9.	To learn how to write sql scripts
	CO.10.	To learn how to write programs involving multiple tables
		BCA4C07-E-Commerce

	CO.1.	To discuss about History and Emergence of Ecommerce
	CO.2.	To discuss E-challenges in India
	CO.3.	To Understand Business Models for Ecommerce
	CO.4.	To know E business models
	CO.5.	To know difference between traditional and modern marketing
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To know Internet Standards and Specifications
	CO.7.	To understand E-Security
	CO.8.	To discuss Information System Security
	CO.9.	To understand concept of Digital Payment
	CO.10.	To describe various E- Payment System
		BCA4C08-Computer Graphics
	CO.1.	To learn basics of computer graphics
	CO.2.	To learn to do animation
	CO.3.	To learn how to draw lines
	CO.4.	To learn line drawing algorithm
	CO.5.	To learn window to view port transformation
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn two dimensional transformation
	CO.7.	To learn basics of LED & LCD
	CO.8.	To learn colour models
	CO.9.	To learn colour applications
	CO.10.	To learn scan conversion of line
		BCA5B07-Computer Organization & Architecture
	CO.1.	To learn the basics of computer organization & architecture
	CO.2.	To make students aware of the memory hierarchy and types of memory
	CO.3.	To get a general understanding of an instruction cycle
	CO.4.	To learn the various addressing modes
	CO.5.	To understand the concept of micro programmed control unit
COURSE CODE, COURSE	CO.6.	To get a general understanding of the register and stack organization

NAME AND COURSE OUTCOMES (COs)		
	CO.7.	To learn the basics of parallel processing
	CO.8.	To learn the types of pipelining
	CO.9.	To learn the classification of computers
	CO.10.	To be able to differentiate between CISC and RISC machines
		BCA5B08- Java Programming
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.6.	To learn networking concept in Java
	CO.7.	To learn OOP features
	CO.8.	To enhance programming Environment
	CO.9.	To learn concept of Applets
	CO.10.	To learn concept of JDBC
		BCA5B09 Web Programming Using PHP
	CO.1.	To discuss about Web Document
	CO.2.	To discuss concept of Web Programming
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.3.	To Understand JavaScript
	CO.4.	To know Client side Programming
	CO.5.	To understand PHP
	CO.6.	To know Server side Programming
	CO.7.	To understand working of PHP
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)		BCA5B10-Principles of Software Engineering
	CO.1.	To learn engineering practices in Software Devolvement
	CO.2.	To learn the software and software engineering
	CO.3.	To realize software engineering requirements
	CO.4.	To get the basic of building the requirement model
	CO.5.	To knowledge the software modelling with UML

	CO.6.	To understand design processing technique
	CO.7.	To understand structured coding technique
	CO.8.	To learn modern programming language feature
	CO.9.	Realize software quality assurance
	CO.10.	To understand software maintainance
COURSE CODE, COURSE NAME AND COURSE		BCS5D01 Introduction to Computers & Office Automation
OUTCOMES (COs)	CO.1.	To Introduce Computer and Computer Peripherals
	CO.2.	To learn concept Internet
	CO.3.	To know Documentation using Word Processor
	CO.4.	To learn MS Office and Open Office Writer
	CO.5.	To learn Electronic Spreadsheet
	CO.6.	To know MS Excel and Open Office Calc
	CO.7.	To work with PowerPoint and Presentations
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)		BCA6B11-Android Programming
	CO.1.	To Introduce Android Computing Platform
	CO.2.	To learn concept of Android Programming
	CO.3.	To get knowledge in Android Programming Environment
	CO.4.	To practice in Android Programming
	CO.5.	To learn User Interface in Android
	CO.6.	To learn GUI Application development in Android
	CO.7.	To work with Android Menus
	CO.8.	To learn creation of Android Layout
	CO.9.	To know about Android Data persistence
	CO.10.	To learn SQLite Database

		BCA6B12-Operating Systems
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)		
	CO.1.	To learn objectives & functions of Operating Systems
	CO.2.	To understand processes & its life cycle
	CO.3.	To learn & understand various memory & scheduling algorithms
	CO.4.	To have an overall idea about the latest developments in Operating systems
	CO.5.	To learn the concept of deadlock
	CO.6.	To learn the concept of Mutual Exclusion
	CO.7.	To learn the concept of Multi-tasking
	CO.8.	To learn the concept of File Management
	CO.9.	To learn the concept of Device Management
	CO.10.	To learn the concept of Processor Management
		BCA6B13-Computer Networks
	CO.1.	To Introduce Computer Networks
	CO.2.	To learn concept of Computer Network Models
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)	CO.3.	To know Data Link Layer services and protocols
	CO.4.	To learn Error and Flow Control Mechanisms in Networks
	CO.5.	To learn Network Layer services and protocols
	CO.6.	To learn various Routing protocols
	CO.7.	To know various Transport Layer protocols
	CO.8.	To learn Network Management protocols..
	CO.9.	To know about security
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)		BCA6B14 Programming Laboratory III: Lab Exam of Java & PHP Programming
	CO.1.	To practice how to interact with databases through PHP
	CO.2.	To practice developing dynamic websites
	CO.3.	To practice PHP Programming
	CO.4.	To practice client side and server side scripting
	CO.5.	To design websites

	CO.6.	To write a JavaScript program to find area and circumference of shapes
	CO.7.	To design a webpage to illustrate image rollover
	CO.8.	To create a login page using database
	CO.9.	To design a PHP page to implement a login screen using sessions
	CO.10.	To design a PHP page to illustrate the use of meter HTML element
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)		BCA6B14 Programming Laboratory IV: Lab Exam of Shell and Android Programming
	CO.1.	To practice how to illustrate different arithmetic operations through shell script
	CO .2.	a shell script to find prime numbers, amstrong number etc
	CO .3.	To practice developing arithmetic android programs
	CO.4.	To implement spinner,menu and alert boxes
	CO.5.	To practice android programs based on UI controls
COURSE CODE, COURSE NAME AND COURSE OUTCOMES (COs)		BCA6B16C Software testing & Quality Assurance
	CO.1	To study Phases of Software project -
	CO.2	To learn different testing methods
	CO.3	To understand Performance Testing
	CO.4	To study System and Acceptance Testing;
	CO.5	To learn different planning methods