



Sai College®

COURSE OUTCOMES
OF
BACHELORSIN COMPUTER
APPLICATION
(BCA)

VISION

To empower the graduates to be technologically adept, innovative, self-motivated and responsible citizens, possessing human values and contribute significantly towards being a center of excellence in providing globally standard education, through a conducive Teaching and Learning environment, that responds swiftly to the challenges of the ever-changing world.

MISSION

- To achieve academic excellence by imparting in-depth knowledge to the students through effective pedagogies and hands on experience on latest tools and technologies.
- To prepare students to be continuous learners in a connected world and imbibe professional skills and ethical responsibilities in them. To strengthen the Industry-Academia interface that will help the graduates to emerge as leaders in academics or an inspiring revolutionary in entrepreneurship.

COURSE OBJECTIVES

The broad objective of BCA degree is **to prepare students for careers in software industry, understanding and skills related to the use of computers and its application.** To impart quality computer education to enhance logical computing and programming skills.

BCA Part-I

Paper	Name of Paper
BCA 101	Discrete Mathematics
BCA 102	Computer Fundamentals

BCA 103	Programming using 'C' Language
BCA 104	PC Software & Multimedia
BCA 105	Web Technology & E-Commerce
BCA 106	Communication Skills
	Bridge Course (Only for Non-Mathematics Students)

Course Outcomes

Paper	Name of Paper	Course Outcomes
BCA 101	Discrete Mathematics	CO 1 Developing formal reasoning and logical notation. CO 2 Perform logical proofs. CO 3 Apply recursive function and solve recurrence relation. CO 4 Understand the concept of Sets and their relations. CO 5 Understand the concept tree and graph representation.
BCA 102	Computer Fundamentals	CO 1 Understand about computers, their evolution, types and concepts. CO 2 Understand about various devices used in a computer system. CO 3 Understand about organization and storage devices of computer. CO 4 Understand about software used in computers and their functions. CO 5 Learn about DOS OS and WINDPWS OS.
BCA 103	Programming using 'C' Language	CO 1 Understand the fundamentals of programming. CO 2 Learn about controlling program execution and functions. CO 3 Learn about collecting data using array, string and binding them in one unit. CO 4 Learn to use pointers and manipulate data using their memory address. CO 5 Learn to handle text files using C

		Language programs.
BCA 104	PC Software & Multimedia	CO 1 Learn to format a document using WORD CO 2 Learn to manipulate data using EXCEL. CO 3 Learn to create presentation using Power Point. CO4 Learn to access and manipulate database using MS Access. CO 5 Learn to handle multimedia like graphics, animation, sound etc.
BCA 105	Web Technology & E-Commerce	CO 1 Understand the basics of Internet and its protocol. CO 2 Create and link web pages using HTML. CO 3 Design web pages using Cascading Styles sheets & JavaScript. CO 4 Create interactive webpages using PHP. CO 5 Understand E-Commerce and its overview.
BCA 106	Communication Skills	CO 1 Learn to form sentences and tenses appropriately. CO 2 Able to make different kind of statements for effective communication. CO 3 Learn to write reports. CO 4 Learn about presentation skills. CO 5 Learn about effective official communication techniques.
	Bridge Course (Only for Non-Mathematics Students)	CO 1 Develop basic concepts about mathematics. CO 2 Learn about permutation, combination, and series. CO 3 Learn about basics of trigonometry. CO 4 Understand the representation of straight line, parabola, ellipse, and hyperbola in coordinate system. CO 5 Understand the statistics like mean, mode and median.

BCA Part-II

Paper	Name of Paper
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BCA 201	Calculus and Differential Equations
BCA 202	Database Management System
BCA 203	Programming using 'C++'
BCA 204	Computer Networks
BCA 205	Operating System with LINUX
BCA 206	Foundation Course

Course Outcomes

Paper	Name of Paper	Course Outcomes
BCA 201	Calculus and Differential Equations	CO 1 Able to solve limit and continuity. CO 2 Able to solve differentiation of function. CO 3 Able to solve trigonometric integrals and integration by parts and substitution. CO 4 Able to solve problems based on definite integrals. CO 5 Able to solve differential equations.
BCA 202	Database Management System	CO 1 Learn about DBMS and to design a database by using different models. CO 2 Learn about logical structure of database. CO 3 Learn about theoretical foundation for relation database and SQL. CO 4 Understand protecting data and making it flexible by eliminating redundancy. CO 5 Gain knowledge of SQL commands for query processing.
BCA 203	Programming using 'C++'	CO 1 Understand basic concepts of OOPs. CO 2 Understand the concept of structures and functions. CO 3 Understand the concept of object and class and constructor and destructors. CO 4 Understand the concept of pointers and inheritance. CO 5 Understand the concept of polymorphism using operator overloading and function overloading.

BCA 204	Computer Networks	CO 1 Learn about computer networking and its basics. CO 2 Knowledge about digital data transmission CO 3 Understand the function of different layers of OSI model CO 4 Understand the function of different layers of TCP/IP model CO 5 Understand the fundamentals of network security and cryptography.
BCA 205	Operating System with LINUX	CO 1 Learn introduction of operating system and its basic concepts. CO 2 Understand the process management and scheduling queues. CO 3 Understand the concept of memory management and page replacement policies. CO 4 Gain knowledge of Unix operating system and its commands. CO 5 Learn about Shell programming.
BCA 206	Foundation Course	CO 1 Learn about Indian art and sculptures. CO 2 Learn about Indian Literatures and epics. CO 3 Learn about Indian freedom struggles and freedom movements. CO 4 Learn about Indian Constitution. CO 5 Learn about communication process and report writing.

BCA Part-III

Paper	Name of Paper
BCA 301	Statistical Analysis
BCA 302	Programming in Python
BCA 303	Dot Net Technology
BCA 304	Software Engineering
BCA 305	Data Structures

BCA 306

Computer System Architecture

Course Outcomes

Paper	Name of Paper	Course Outcomes
BCA 301	Statistical Analysis	CO 1 Understand the concept of permutation and combination. CO 2 Learn to analyse statistical data using measure of central tendency CO 3 Learn to recognise and apply common probability distributions. CO 4 Learn about correlation, regression, and curve fitting. CO 5 Learn about basics of sampling theory.
BCA 302	Programming in Python	CO 1 Learn about basics of python programming language. CO 2 Learn creating python programs and controlling their execution. CO 3 Learn about handling strings and text files using python programs. CO 4 Learn about lists, tuples and dictionary and various data structures. CO 5 Learn about creating modules and handling exceptions in python programs.
BCA 303	Dot Net Technology	CO 1 Understand the basics of .NET framework. CO 2 Learn creating programs in VB.Net. CO 3 Learn creating windows forms. CO 4 Learn the basic OOPs concepts. CO 5 Learn database programming and connectivity with database.
BCA 304	Software Engineering	CO 1 Understand the fundamentals of software engineering and its approaches. CO 2 Learn the system designing concepts and standards. CO3 Learn the use of case tools and choice of programming languages. CO 4 Learn the testing of software quality and its assurance.

		CO 5 Learn the planning of software projects and their monitoring and management.
BCA 305	Data Structures	CO 1 Learn basic concepts and terminology of data structures and algorithms. CO 2 Learn about arrays, records, and pointers in data structures. CO 3 Learn about linked list stacks, queues, and recursions. CO 4 Learn about binary tree and its operations. CO 5 Learn about sorting and searching algorithms.
BCA 306	Computer System Architecture	CO 1 Understand the representation of data in various codes. CO 2 Understand digital logic circuits and their combinational and sequential circuits. CO 3 Understand CPU organisation and microprocessor control signals. CO 4 Understand basic input output organisation and their controllers. CO 5 Understand memory and their accessing techniques.