

# BCA

## Programme Outcome

The objective of this course is to provide a sound academic base from which a moderate to advanced career in Computer Applications can be developed. A firm, conceptual grounding in computer applications in the practical environment is the focus of the programme.

The programme has been designed to prepare employable students with knowledge, skills and aptitude appropriate for the prevalent IT market. Accordingly, the emphasis of the programme is more on programming and software applications. Students will learn various development tools involved in creating application software, to inculcate various methodologies in automation.

## Course Outcome

Course Code/Paper	Course Name	Course Outcome
BCA-101	Mathematics – I	Students will be imparted with knowledge of basic mathematical concepts and techniques
BCA-102	Digital Computer Fundamentals	Students will be introduced to the concepts of Digital Logic and Computer Fundamentals. It will provide Students with an insight into the workings of internal circuitries of modern day Digital Computers.
BCA-201	Mathematics – II	Students will imparted with the knowledge of basic mathematical concepts and techniques.
BCA-202	Data Structure in C	After completion of this course, a student will be able to 1.understand and use the process of abstraction using a programming language such as ‘C’ 2.analyse step by step and develop algorithms to solve real world problems 3.implement various data structures viz. Stacks, Queues, Linked Lists, Trees and Graphs 4.understanding various searching and sorting techniques.
BCA-203	Computer System Architecture	Students will be imparted with basic knowledge of Computer Architecture and will introduce them to an introduction to parallel processing and data transfer techniques.
BCA—301	Financial Accounting and Management	Students will learnt the basic accounting knowledge as applicable to business and will acquaint them with basic idea about business and its management.
BCA-302	Database Management System	This paper will introduce the students to the fundamental concepts for database applications. Students will gain knowledge of Database Design, and Implementation techniques with basic ideas of advanced database concepts.
BCA-303	Operating System and Introduction to LINUX	Students will be introduced to a layer of software called the Operating System, whose job is to manage all the devices of a computer system and provide user programs with a simple interface to the hardware. Students will gain knowledge of the operating system

		concepts and gain a basic understanding of the Linux operating system with hands-on experience of Shell programming.
BCA-401	Software Engineering	Students will have a broad understanding of system development concepts and provide the students with a sense of confidence to develop new systems.
BCA-402	Data Communication and Networks	Students will be introduced to the basic concepts in computer networking and few advanced topics as well. Students will have an in depth knowledge about the various layers in the networks, design issues, algorithms and protocols.
BCA-403	VB.NET Programming	After completion of this course, a student will be able to learn <ul style="list-style-type: none"> <li>• The language Visual Basic</li> <li>• The .NET framework</li> <li>• Programming Logic</li> <li>• Database programming and</li> <li>• Web applications</li> </ul>
BCA-502	Object Oriented Programming Through Java	After completion of the course students are expected to understand the following- <ul style="list-style-type: none"> <li>• Java tokens for creating expressions and creating data types.</li> <li>• The way various expressions and data types are assembled in packages.</li> <li>• Implementation of Inheritance, Exception handling and Multithreading in Java.</li> <li>• Java I/O basics and Applets.</li> <li>• Network Programming in Java.</li> <li>• Accessing relational databases from Java program.</li> <li>• Java Servlets.</li> </ul>
BCA-503 (Elective I)	BCA-503a: Internet & Web Technology Using MYSQL and PHP	Students will learn and know the principles and techniques of programming for the Web. Students will learn a web programming knowledge using PHP and MySQL.
	BCA-503b: Internet & Web Technologies Using JSP	Students will be familiarized with Web Technologies and Internet Programming based on markup languages, stylesheets, scripting languages which will enable them to build and layout useful Web pages.
BCA-602 (Elective 2)	BCA-602a: Artificial Intelligence	This paper describes the fundamental AI ideas that underlay many of the AI applications. The course will provide the students with a base for understanding artificial intelligence.
	BCA-602b: Data Warehousing and Data Mining	Students will learn the concept and various techniques of data mining to the students. Students will also learn the feasibility, usefulness, efficiency and the scalability of the techniques for discovery of patterns hidden in large databases.
	BCA-602c:	After completion of this course, the students will know how

	Operations Research	to apply operations research techniques to solve the real problems.
	BCA-602d: Network Security	On completion of this course, students will learn about the fundamental concepts, theory and techniques of Cryptography and Network Security.
	BCA-602e: E-Commerce	Students will be familiarized t with E-Commerce, its importance in today's world and also the pitfalls involved.
BCA-603	Project Work	Students will be able to apply concretely in a small package the concepts gained from Software Engineering. They will be able to follow the stages in the development of the software system and learn how to develop live projects.