



**University of
Technology**
Serving Education Since 1976

Syllabus

Course Outcomes
Of
Department of BCA

Department of BCA

Course Code	Name of the Course	Course Outcomes
BCA101	Office Automation and IT Tools	Enable students to manage and analyze data effectively using spreadsheet applications and develop skills to create engaging and effective presentations using presentation software.
BCA 102	Basic Mathematics	To prepare students for advanced topics in mathematics relevant to computer applications and to develop a strong foundation in basic mathematical concepts essential for computer science.
BCA103	Operating Systems	To learn about process management, scheduling algorithms, and inter-process communication and to discuss security and protection mechanisms within operating systems.
BCA104	Principles of Programming Languages (Through 'C')	To develop problem-solving skills using structured and modular programming techniques and gain insight into the design and implementation of programming languages. Students will learn the syntax and semantics of the C programming language.
BCA105	Computer Organization	To understand the fundamental concepts of computer organization and architecture and analyze instruction sets and machine language programming.
BCA106	Web Technology	To understand the foundational concepts of web technologies and their applications and apply best practices in web development, including usability and accessibility.

BCA 201	Object Oriented Programming Through C++	Develop a complete software application using C++ and Write and debug C++ programs utilizing core C++ constructs with the Understanding to apply OOP principles in software design.
BCA 202	Database Management System	Learn to Conduct thorough requirements analysis to inform design decisions and Apply design patterns to create reusable and efficient system designs. Able to know Develop software architectures that meet specified requirements.
BCA 203	Software Engineering	Analyze and document software requirements effectively and Manage software projects using project management tools and techniques. To understand the software development life cycle and its methodologies.
BCA 204	Data Structure and Algorithms	Implement and manipulate data structures using a programming language. Evaluate and compare the efficiency of different algorithms. Students will be able to describe various data structures and their applications.
BCA 205	Cloud Computing	Analyze the architecture and components of cloud computing systems and to Identify security and compliance issues in cloud environments. Explain the fundamental concepts and models of cloud computing.
BCA 206	Course Description	Implement database connectivity and perform data manipulation using PHP and MySQL. Students will be able to demonstrate understanding of PHP syntax and programming concepts.

BCA 301	Data Structure (Using C/C++)	Apply appropriate data structures to solve computational problems. Explain various data structures and their applications and analyze time and space complexity of algorithms.
BCA 302	System Design Concepts	Design system architectures using appropriate architectural patterns and Describe fundamental concepts and principles of system design. Analyze requirements for system design effectively.
BCA 303	Networking Technologies	Identify security threats and implement measures to secure networks. How to Configure and troubleshoot routing and switching devices. Analyze and compare different network protocols
BCA 304	Core Java Programming	Utilize the Java Collections Framework for data management. Understand the fundamentals of Java programming. Develop simple GUI applications using Java Swing.
BCA 305A	E-Commerce	Develop strategic plans for launching and managing an e-commerce business. Identify and explain different types of e-commerce models. Understand the legal and ethical issues in e-commerce
BCA 305B	Core Python Programming	Use control structures and functions to develop Python applications. How to Handle files and exceptions in Python programs. Utilize Python libraries and create custom modules.
BCA 306A	Linux & Shell Programming	Understand the architecture and components of the Linux operating system and Perform file management and manipulate file permissions in Linux. Manage processes and system resources effectively.

BCA 306B	PHP	Implement database connectivity and perform data manipulation using PHP and MySQL. Apply security best practices in PHP web applications. How to Demonstrate understanding of PHP syntax and programming concepts.
-----------------	------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------