



iUniversity
BY IYDA

Bachelor of Computer Applications (BCA)

Program Syllabus & Curriculum Guide

Program Overview

The BCA program develops strong foundations in computer science, software development, databases, networking, cloud computing, cybersecurity and modern IT technologies through theory and practical learning.

Duration	3 Years (6 Semesters)
Mode	Online
Eligibility	10+2 or Equivalent from a recognized board
Learning Hours	Approx. 3,200 Hours

Program Objectives

- Build programming and software development skills.
- Develop analytical and problem-solving abilities.
- Learn databases, networking, cloud computing and cybersecurity.
- Prepare students for IT careers and higher education.

Semester-wise Curriculum (Indicative)

Semester 1

- Computer Fundamentals
- Programming in C
- Mathematics
- Digital Electronics
- Communication Skills

Semester 2

- Data Structures
- Object Oriented Programming
- Operating Systems
- DBMS
- Web Technologies

Semester 3

- Computer Networks
- Java Programming
- Python Programming
- Software Engineering
- Statistics

Semester 4

- Cloud Computing
- Cyber Security
- PHP/.NET
- Computer Architecture
- Mini Project

Semester 5

- Data Analytics
- Mobile App Development
- AI Basics
- Elective
- Major Project Phase I

Semester 6

- Full Stack Development
- Professional Ethics
- Internship
- Major Project Phase II
- Viva

Career Opportunities

Software Developer, Web Developer, Mobile App Developer, Database Administrator, System Administrator, Data Analyst, Cloud Engineer, Cybersecurity Analyst, QA Engineer, IT Support Engineer.

Disclaimer

This is a model syllabus for informational purposes. The final curriculum may vary according to university regulations and academic updates.