

The Bachelor of Computer Applications (BCA) program at Manipal University Jaipur (MUJ) offered online is a comprehensive course designed to equip students with fundamental and advanced skills in computer science and applications. The curriculum spans six semesters and covers a wide range of topics, from foundational computer knowledge to advanced technical skills. Here's a brief overview:

First Year:

- **Semester 1:**
 - **Fundamentals of Mathematics**
 - **Technical Communication**

- **C Programming**
- **Fundamentals of Computers & Digital Systems**
- **Introduction to Web Programming**
- **C Programming Lab**
- **Web Programming Lab**
- **Semester 2:**
 - **Basic Statistics and Probability**
 - **Data Structures**
 - **Database Management Systems (DBMS)**
 - **Principles of Programming Languages**
 - **Object-Oriented Programming using C++**
 - **DBMS Lab**

- **Data Structures using C++ Lab**

Second Year:

- **Semester 3:**

- **Computer Organization and Architecture**
- **Java Programming**
- **Data Communication & Protocols**
- **Operating Systems**
- **Artificial Intelligence for Problem Solving**
- **Java Programming Lab**
- **Operating Systems Lab**

- **Semester 4:**

- **Python Programming**
- **Software Engineering**
- **Data Mining & Visualization**

- **Introduction to Network Security**
- **Python Programming Lab**
- **Data Mining and Visualization Lab**

Third Year:

- **Semester 5:**
 - **Mobile Application Development**
 - **Machine Learning**
 - **Cloud Computing & Applications**
 - **Machine Learning Lab**
 - **Aptitude and Technical Development**
 - **Electives (Cloud Computing, Data Science, or Cyber**

Security)

- **Semester 6:**

- **Wireless Communication**
- **Unix and Shell Programming**
- **Big Data**
- **Unix and Shell Programming Lab**
- **Final Project**
- **Elective II (Cloud Storage, Data Visualization, or Information Systems Security)**

This program also includes practical labs, project-based learning, and electives in specializations like Cloud Computing, Data Science, and Cyber Security. Students benefit

from live lectures, recorded sessions, career guidance, and placement assistance(

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If you're considering pursuing a BCA at MUJ, it's a well-rounded option that balances academic knowledge with practical skills development, making it ideal for a career in the IT and tech sectors.

