




DEGREE PROGRAM

Bachelor of Computer Applications (BCA)

 **Specialization: Artificial Intelligence (AI) & Data Science (DS)**

 Offered by RanBros Global in Academic Collaboration with Desh Bhagat University

DURATION

3 Years | 6 Semesters | Full-Time Undergraduate Degree

PROGRAM OVERVIEW

This BCA specialization in AI & Data Science is ideal for students ready to become tomorrow's innovators. With technology reshaping industries, the course blends **software fundamentals** with **AI algorithms, data analytics, deep learning, and intelligent system design**.

Delivered through **project-based learning**, real-time **industry exposure**, and **mentorship**, the program ensures students are **job-ready** for cutting-edge roles in AI and Data Science sectors.

ELIGIBILITY

- 10+2 (Any Stream) with minimum **45% marks**
- Basic knowledge of Computers preferred
- Admission through **Online/Offline Application**
- No entrance test required (Direct Admission Based on Merit)
- 45 to 50%, Interview Required

DETAILED SYLLABUS OUTLINE

Bachelor of Computer Applications (BCA)

 Specialization: Artificial Intelligence (AI) & Data Science (DS)

17 Semester 1 – Foundation of Programming & IT

- Programming in C
- Fundamentals of Computers
- Mathematics for Computer Applications
- Communication & Soft Skills
- Introduction to AI
- Lab: C Programming
- Lab: AI Basics (using Scratch or Python basics)

17 Semester 2 – Web, Python & Databases

- Programming in Python
- Web Technologies (HTML, CSS, JavaScript, Bootstrap)
- Operating System Fundamentals
- Database Management Systems (SQL, MongoDB)
- Data Analytics Basics using Python
- Lab: Python Projects
- Lab: Web Development Mini Projects

17 Semester 3 – Java, Data Science & Machine Learning

- Object-Oriented Programming with Java
- Software Engineering & Agile Methods
- Statistics & Probability for Data Science
- Introduction to Machine Learning
- Data Visualization with Power BI / Matplotlib
- Lab: Java Programming
- Lab: Data Science Mini Projects

17 Semester 4 – AI Models & Data Mining

- Deep Learning & Neural Networks (using TensorFlow/Keras)
- Data Mining Techniques

- R Programming for Data Analysis
- Big Data (Hadoop & Spark Basics)
- Minor Project – AI/DS Model
- Lab: Deep Learning Experiments
- Seminar/Workshop: Applied AI Use Cases



Semester 5 – Advanced AI & Emerging Tech

- Natural Language Processing (NLP)
- Cloud Computing & IoT
- Reinforcement Learning
- Computer Vision & Image Processing
- Capstone Project – Intelligent Application
- Lab: NLP/Cloud Deployment
- Technical Communication & AI Ethics



Semester 6 – Internship & Specialization

- Industrial Internship (6–8 weeks)
- Final Year Major Project (AI/DS-based Product or Research)
- Entrepreneurship & Startup Essentials in AI
- Cybersecurity & Blockchain Fundamentals
- Viva-Voce & Project Evaluation
- Lab: Cloud + AI Deployment (AWS/GCP)



CAREER PATHS AFTER COMPLETION

- ✓ AI Engineer
- ✓ Data Scientist / Data Analyst
- ✓ Machine Learning Developer
- ✓ NLP Specialist / Researcher
- ✓ Business Intelligence Analyst
- ✓ IoT / Cloud Application Developer
- ✓ Startup Founder in AI/DS



INFRASTRUCTURE & FACILITIES

- High-Performance GPU Labs for AI/ML
- Wi-Fi Enabled Smart Classrooms
- Tech Library with Digital Access

- Hostel Services Available
- 24/7 Student Helpline Support

REQUIRED DOCUMENTS

- 10th & 12th Mark Sheets (Original + Photocopy)
- 4 Passport-size Photos
- Aadhar Card Copy
- Migration Certificate (if applicable)
- Caste Certificate (if applicable)

FEE STRUCTURE

Semester	Tuition Fee	Admission Fee	Total
1st Sem	₹17,000	₹1,000 (one-time)	₹18,000
2nd Sem	₹17,000	₹0	₹17,000
3rd Sem	₹17,000	₹0	₹17,000
4th Sem	₹17,000	₹0	₹17,000
5th Sem	₹17,000	₹0	₹17,000
6th Sem	₹17,000	₹0	₹17,000
Total	₹1,02,000	₹1,000	₹1,03,000

Exam Fees: ₹2,000–₹3,000 per semester (as per Desh Bhagat University guidelines)

HOW TO APPLY

 **Apply Online:** [Click here](#) OR visit website www.ranbrosglobal.com

 Or contact our admission team below for help

CONTACT US


India Office


RanBros Global

Airport Road, NH 354 Ajnala Road

(Just past Radisson Blu Hotel, Near Amritsar International Airport)

Raja Sansi, Punjab, India – 143101


 +91 82644 08520 (WhatsApp/Call)

 +91 97796 53679

Australia Office

Suite 438, 311-315 Castlereagh St

Sydney, NSW, Australia

 +61 449 606 497

 Email: info@ranbrosglobal.com

 Website: www.ranbrosglobal.com

Enroll Now

Start your AI journey with **practical skills, global exposure, and career-focused training** only at
RanBros Global – Your Gateway to Future Tech