



[www.inspiria.edu.in](http://www.inspiria.edu.in)

# BCA

## in Data Science & Cyber Security

4 Years | Full-Time | Industry-Integrated



Get *Life-Ready* with Inspiria

# 2022

## BCA in Artificial Intelligence & Machine Learning:

B.Sc in Data Science: Launched to meet the critical, rapidly growing demand for Big Data analysis and business intelligence professionals.

## Trusted Recognitions



National Assessment and Accreditation Council



All India Council for Technical Education



MAKAUT, University of Technology



Institution's Innovation Council (IIC)





Format

**FULL TIME**

Immersive learning experience

Eligibility

**CLASS XII**

From Fundamentals to Future-ready Skills

Approval

**AICTE**

The only AICTE-approved digital marketing degree course in Siliguri.

Duration

**4 YEARS**

3 years at Inspiria + 1 Year-Long Internship

Recognized & Respected



# 4-YEAR | 8-SEMESTER CURRICULUM MAP



## 1st Semester

- IT Service Management (ITSM)
- AI for Everyone: Prompt Engg. & LLMs \*
- AI for Everyone: Prompt Engg. & LLMs \* - Lab
- Programming for Problem Solving (C)
- Programming for Problem Solving (C) - Lab
- English for Communication
- Indian Knowledge System
- Soft Computing
- Soft Computing

## 2nd Semester

- Data Structures and Algorithms
- Data Structures and Algorithms - Lab
- Exploratory Data Analysis (Python) \*
- Exploratory Data Analysis (Python) \* - Lab
- Cyber Hygiene & Digital Forensics \*
- Constitution of India
- Health & Wellness / Yoga
- Basics of Data Analytics using a Spreadsheet
- Basics of Data Analytics using a Spreadsheet

## 3rd Semester

- Database Management Systems
- Database Management Systems - Lab
- Machine Learning: Theory & Practice \*
- Machine Learning: Theory & Practice \* - Lab
- Network Defense & Ethical Hacking \*
- Data Visualisation (Tableau/Power BI)
- Data Visualisation (Tableau/Power BI) Lab
- Environmental Science

## 4th Semester

- Operating Systems & Virtualisation
- Operating Systems & Virtualisation - Lab
- Big Data Engineering (Hadoop/Spark) \*
- Big Data Engineering (Hadoop/Spark) \* - Lab
- Web & Application Security \*
- Big Data Analytics
- Environmental Science Lab/
- Mathematics for Computing

# 4-YEAR | 8-SEMESTER CURRICULUM MAP

## 5th Semester

- Applied MLOps (Data Science Ops)
- Applied MLOps (Data Science Ops) - Lab
- Cloud Security (Cyber Ops)
- Cloud Security (Cyber Ops) - Lab
- Elective I: NLP / Malware Analysis / Statistics for Data Science
- Elective I: NLP / Malware Analysis LAB/ Statistics for Data Science
- Cyber Laws, Privacy & Compliance
- Industrial Internship

## 6th Semester

- Deep Learning & GenAI Architectures
- Deep Learning & GenAI Architectures - Lab
- Incident Response & Threat Intel
- Network Security and Firewalls
- Project

## 7th Semester

- Research Methodology and IPR
- Adversarial Machine Learning
- Adversarial Machine Learning - Lab
- Research Dissertation / Internship

## 8th Semester

- AI-Driven Security Analytics
- AI-Driven Security Analytics Lab
- Final Research Dissertation / Internship



# The Four Pillars of Data Science



## 01 Year

### ADVANCED EXCEL & DATA VISUALIZATION

- Build interactive dashboards
- Perform complex data cleaning
- Statistical analysis using Data Analysis ToolPak
- Automate repetitive tasks

## 02 Year

### PYTHON PROGRAMMING FOR DATA ANALYSIS

- Clean and transform datasets
- Perform numerical computations
- Build exploratory data analysis (EDA) reports
- Handle real-world datasets

## 03 Year

### SQL & DATABASE QUERYING

- Write complex queries
- Design normalized tables & ER diagrams
- Perform data extraction and filtering
- Build end-to-end data pipelines for reporting tasks

## 04 Year

### BUSINESS INTELLIGENCE (BI) & DATA STORYTELLING

- Create interactive BI (Power BI/ Tableau) dashboards
- Apply DAX calculations for data modeling
- Perform KPI tracking, trend forecasting & What-If analysis
- Convert reports into business narratives

**Become the Analyst Every Company Wants**



# Industry-Oriented CURRICULUM

To equip students with comprehensive technical proficiency and hands-on IT skills, fostering readiness for careers in software development, data management, and evolving technology domains.

## **Practical Learning:**

Hands-on projects, labs, coding exercises, and hackathons

## **Industry Exposure:**

Internship, live projects, company visits, and mentorship

## **Updated Curriculum:**

Latest tools, technologies, and industry-relevant subjects

## **Skill Development:**

Soft skills, problem-solving, teamwork, & communication.

## **Discover:**

a unique  
undergraduate program



# Practical Curriculum

01

## Full-Stack Development

- Frontend: HTML, CSS, JavaScript
- Backend: Node.js, Python (Django/Flask), PHP
- Tools: Git & GitHub

02

## Database & Data Management

- Databases: MySQL, MongoDB
- Tools: SQL Workbench, Firebase

Transforming  
theory into  
practice

03

## Cloud & Deployment

- Cloud: AWS, Google Cloud
- Deployment: Heroku, Netlify, Vercel
- Tools: Docker

04

## Emerging Technologies

- AI/ML
- Blockchain
- AR/VR

# Hands-on Experiential Learning

01

High end Computer Labs  
with latest Softwares



02

Visit to Data centres &  
High Performance  
Computing Units

03

Application driven  
learning through Projects



# Supplementary value-added seminars & sessions



Cybersecurity



Artificial Intelligence

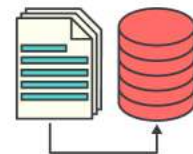


Data Analytics and BI

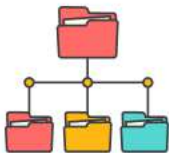


UI/UX Designs

## Technical Mastery (Hard Skills)



Databases



Data Structure & Algorithms



Cloud Computing



Full stack developer

## Professional Competence (Soft Skills)



Project Management



Communication & Team work



Quantitative Aptitude



Technical Writing

# Learning Ecosystem



Campus Powered by:  
Google Apps



State-of-the-Art Labs with:  
High-Speed  
Connectivity



Tech enabled:  
Classroom Environment



Well-equipped library and  
Digital Knowledge Hub



Digital Classrooms  
Learn, track, and grow all in one  
modern LMS platform.



Customized for  
Seamless communication,  
smarter learning.

# One Mindset

From Hard Coders to Non-Coders We Nurture All



Low Code



Hard Code



No Code

We Encourage Every Talent.

## Academia-Industry Fusion

**FROM CODE TO CAREER**  
WEB DEVELOPMENT JOURNEYS THAT INSPIRE

**ABHISHEK SHARMA**  
Head of Engineering @ Knowledge & Portal Studios

**BINOD MANALI**  
Engineering Manager at Transatel

**SATIRUPA**  
Head of Delivery - Portal Studios  
Development L2, Productive  
DataCals Beverage Pvt Ltd,  
Cognizant Pvt. Ltd.,  
Arlaya India Group

**13<sup>TH</sup> FEBRUARY**  
1:30 PM ONWARDS

VENUE: JEEPRATI HALL, E,  
INSPIRA KNOWLEDGE CAMPUS

**INSPIRA**  
**3 Day Workshop**  
by Appseconnect

Day1: Usage of APIs in Business Applications: REST, GraphQL,  
Day2: Business Process Management through Applications  
Day3: Importance of Channel/Network

**02/12/2024 - 06/12/2024** Starting At 3:00pm

**INSPIRA**  
**ACHNET**  
Portal Demonstration

Demonstrator:  
**Dr. Surendra Nadig**

**09 DECEMBER, 2024**  
03:00PM ONWARDS

Seminar Hall-1  
Inspira Knowledge Campus

# Industry Mentors

Support that Strengthens Beyond Studies



**Atul Gupta**  
CEO, APPSeCONNECT



**Abhishek Gupta**  
Founder, Codebuddy



**Santosh Panda**  
CEO, Explore



**Vinay Pagaria**  
CTO, Stockedge



**Abhishek Rungta**  
Founder, INT Global



**Srish Agarwal**  
Founder,  
A1 Future Technologies



**Mrityunjay Kumar**  
Asso. Prof.



**Kashi K S**  
Chief AI Officer at  
Alfahive Inc



**Swagata Chakraborty**  
Designer, APPSeCONNECT



**Rakesh Mondal**  
AI-First SaaS UX/UI,  
Enterprise Product Designer



**Sri Harsha Mallepudi**  
Product Design @  
CostGPT



**Penchen Dorjee Tamang**  
AI Expert, Bushiso.one

# Workplace-ready Experiences

## Hackathon & Coding challenges

Platforms like HackerRank, CodeChef, LeetCode, HackerEarth, & Codeforces help them build confidence and industry-ready projects.

## Mock-X Campuso & Office simulation

Mock interviews and office simulations prepare students for real corporate environments. It builds confidence, communication, and professionalism.

## Networking Opportunities

Mentorship and Industry guidance.

## Soft-Skills Training

Soft-Skills Training equips students with communication, teamwork, and leadership abilities to thrive in professional environments.

## Professional tools & Platforms

GitHub for collaboration, VS Code, Docker and Kubernetes for deployment, NumPy, Pandas, Matplotlib, R, Tableau, Power BI, Excel, MySQL, PostgreSQL etc. for DBA.

## Innovation, Research & Entrepreneurship

We foster Innovation, Research, and Entrepreneurship to transform ideas into impactful solutions and future-ready ventures



# Internships

## Start in Year 3



### Early Exposure

Experience real-world workflows and Industry practices



### High Participation

100% of students intern within their third year.



### Global Opportunities

Promoting the Global Integration of Skilled Students.



# 1:1 Mentorship

1:10 Mentor-to-Student Ratio Ensuring personalized guidance and support for Projects, Internship & Placement.



# Innovation in Action: Hackathons

Presented by **codebuddy** | **INT.**

**< AIGNITE '25 />**

## East India's Largest AI <hackathon/>

Kolkata & Siliguri

Open for professionals & students.

**APRIL 19-20 2025**

**PRIZES ₹5L WORTH**

A GOLDEN CHANCE TO GET YOUR AI IDEA FUNDED & INCUBATED

Register at: [aignite2025.com](https://aignite2025.com)

**Judges**

- Abhishek Gupta, Founder, Community
- Santosh Panda, CEO, Survo
- Abhishek Bhatnagar, Founder, NT Group
- Debashis Sen, Founder, i4i
- Vinay Prasad, CEO, Knowledge
- Atul Gupta, CEO, iFFaC@INCENT

In association with **Heritage Institute of Technology** and **Inspira Knowledge Campus**

In association with **marqera** | Organized by **INSPIRIA KNOWLEDGE CAMPUS**

## 24-Hour UI/UX Sprint Design-a-thon

Design smart, inclusive product prototypes in Figma to solve real-world problems.

**MAY 09-10 2025**

Prizes **₹50K WORTH**

Register Now and Submit Your Idea (Individual Participation Only)

[inspiria.edu.in/Design-a-thon](https://inspiria.edu.in/Design-a-thon)

Scan to Register



[www.inspiria.edu.in](https://www.inspiria.edu.in)

# Student Endeavours and Notable Accomplishments

---



**Leher Dangal-2024**

Best Paper Presenter National  
Transdisciplinary Conference



**Himanshu Katwal-2024**

WAKO India State Kickboxing  
Championship-2024



# Competency Outcomes

Domain I: Computational Foundations

Outcome 1.1: Software Development Proficiency

Outcome 1.2: System and Database Management

Outcome 1.3: Algorithm and Data Structures Mastery

Domain II: Data Science and Statistical Analysis

Outcome 2.1: Data Engineering and Preprocessing

Outcome 2.2: Inferential and Predictive Analytics

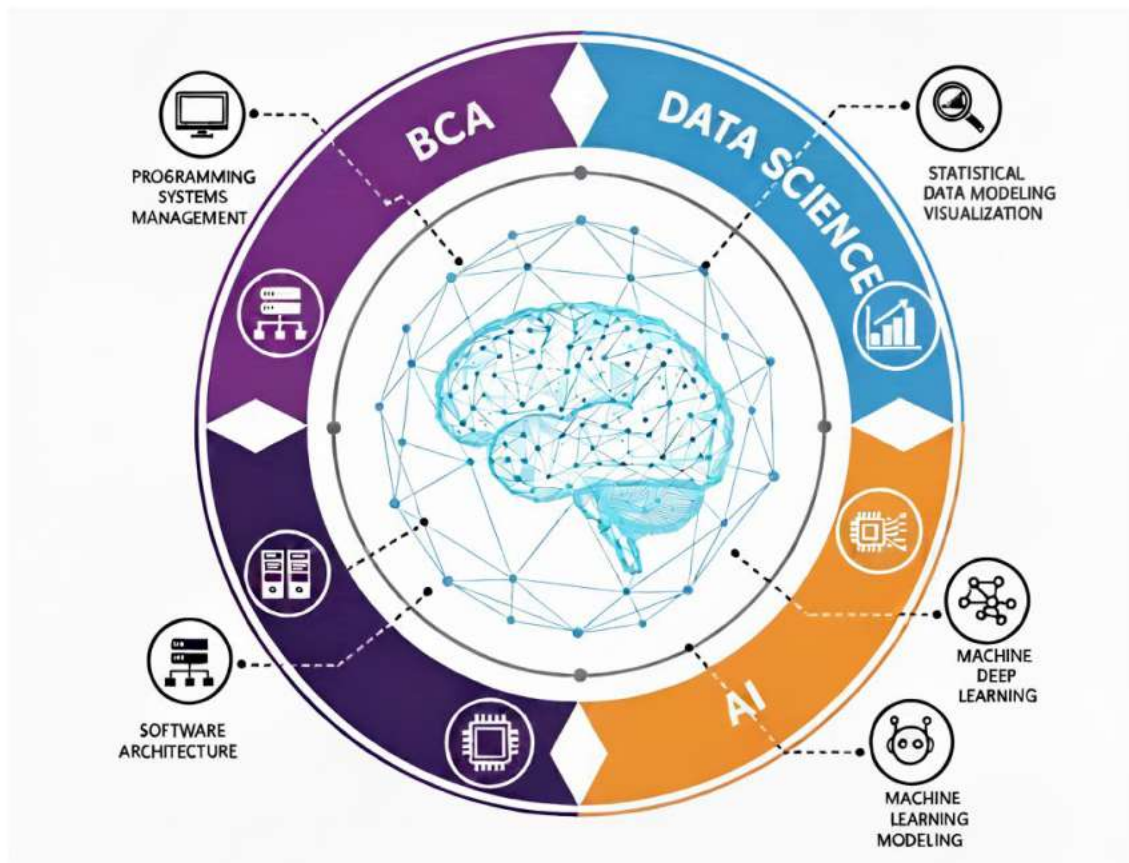
Outcome 2.3: Big Data Fundamentals

Domain III: Artificial Intelligence and Machine Learning

Outcome 3.1: Machine Learning Model Development

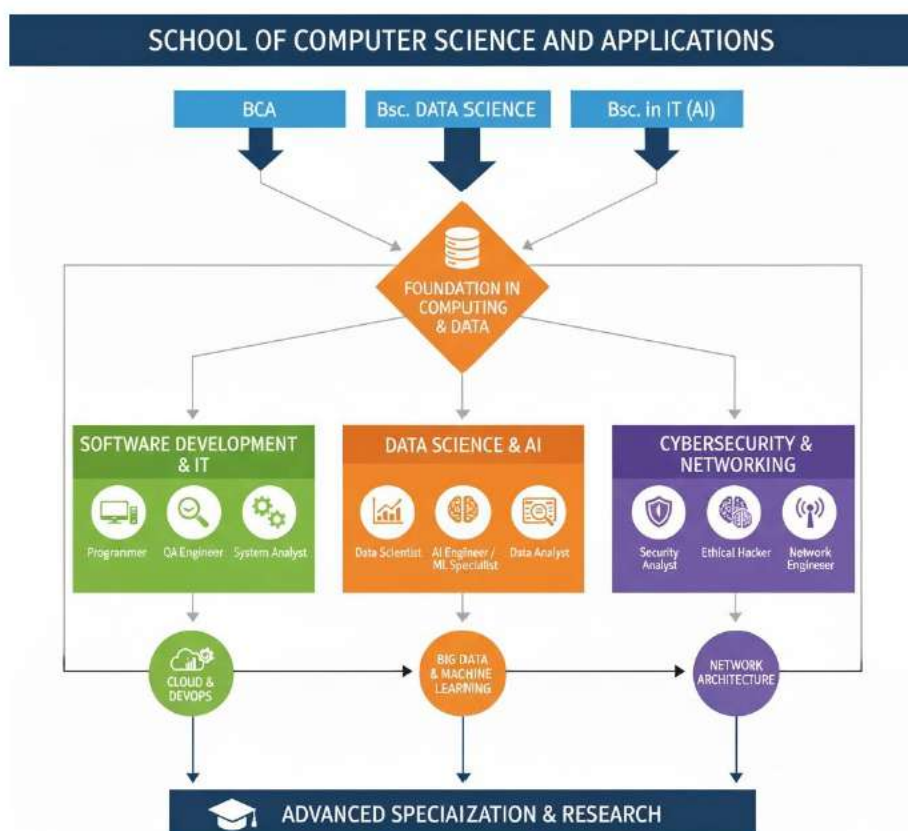
Outcome 3.2: Deep Learning Implementation

Outcome 3.3: Model Deployment and Governance (MLOps)



# Structured career routes available to students

Career Stream	Core Roles (Entry-Level)	Primary Skills to Master NOW	Ideal Course Link
Software Dev	Junior Programmer, QA Tester, Dev Trainee	Programming (Python/Java), Web (HTML/JS), SQL	BCA, BSc IT (AI)
Data & Analytics	Data Analyst, BI Trainee, Database Admin	SQL, Statistics, Python (Pandas), Data Viz (Tableau/PowerBI)	BSc Data Science, BCA
Cybersecurity	Security Analyst (Tier 1), Network Trainee	Networking (TCP/IP), Linux, Security Concepts	BCA, BSc IT (AI)
Advanced Tech	Cloud Intern, AI/ML Intern	Cloud (AWS/Azure), Advanced Math/Stats, ML Concepts	BSc IT (AI), BSc Data Science



# Placement

Bridging Education and Employment



INSPIRIA KNOWLEDGE CAMPUS

*Congratulations*



**Md Afridi Hasan**

B.Sc. in Data Science (2023-2027)

Placed at

**TECH mahindra**

www.inspiria.edu.in

INSPIRIA KNOWLEDGE CAMPUS

ACBQ

ASSOCIATION OF AMBA

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS



INSPIRIA KNOWLEDGE CAMPUS

*Congratulations*

**Roshni Khatoon**

B.Sc in Data Science (2022-2025)

Placed:

**TECH mahindra**



www.inspiria.edu.in

INSPIRIA KNOWLEDGE CAMPUS

ACBQ

ASSOCIATION OF AMBA

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS



INSPIRIA KNOWLEDGE CAMPUS

*Congratulations*

**Khushi Prasad**

B.Sc in Data Science (2022-2025)

Placed:

**TECH mahindra**



www.inspiria.edu.in

INSPIRIA KNOWLEDGE CAMPUS

ACBQ

ASSOCIATION OF AMBA

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS



INSPIRIA KNOWLEDGE CAMPUS

*Congratulations*

**Aryan Sharma**

B.Sc in Data Science (2022-2025)

Placed:

**TECH mahindra**



www.inspiria.edu.in

INSPIRIA KNOWLEDGE CAMPUS

ACBQ

ASSOCIATION OF AMBA

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

ASSOCIATION OF MBAS

# Meet the **faculty**

Faculty Perspectives That Turn Theory into Reality



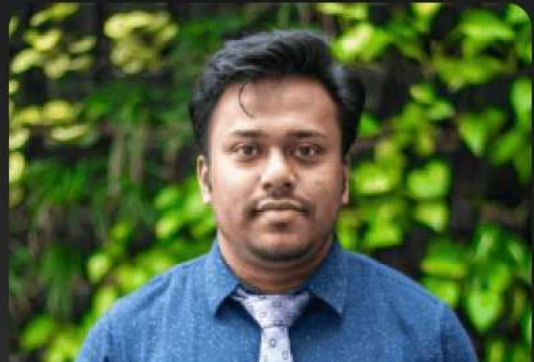
**Subhro Sarkar**



**Neha Thapa**



**Tanmoy Ghosh**



**Nandan Das**



**Pritam Taldhi**



**Aritra Dey**

# Lead the **Future**

Building the Next Generation of Innovators:  
Software Developers, Data Scientists, Cybersecurity Professionals,  
AI/ML Engineers, Web & App Developers,  
Business Intelligence Experts, and AI-driven Product Leaders.



**Inspiring future generations!**

Learn, innovate, and create solutions that shape the future—because your journey as a tech leader starts here.



Future-proof your **CAREER** in  
India's fastest-growing industry.



Industry-Integrated Curriculum  
with Practical Exposure



Certifications from  
Global Leaders



Strong Industry Network  
and Placement Support



[www.inspiria.edu.in](http://www.inspiria.edu.in)

**Inspiria Knowledge Campus**

Himachal Vihar, Phase - II,  
Matigara, Siliguri, West Bengal - 734010

Reach Us (+91-8900755555) [contact@inspiria.edu.in](mailto:contact@inspiria.edu.in)

Follow Us @Inspiriaindia

