BCA Course Structure

1. Program Overview

- The BCA program at JICM is strategically designed to blend theoretical foundations with practical innovation, ensuring students are thoroughly industry-ready upon graduation.
- JICM's core objective is to ensure a BCA degree with blending theoretical education with direct corporate immersion.

2. Program Highlights (Why BCA at JICM)

Align with the current demands of the tech industry, the curriculum emphasizes modern technology stacks such as,

- **AIML (Artificial Intelligence & Machine Learning):** Training in predictive modelling, neural networks, and AI-driven solutions.
- **Data Science:** Equipping students with the skills to analyse, visualize, and extract insights from complex data sets.
- **Full Stack Development:** Comprehensive training in both front-end and back-end web technologies to build complete software applications.

Experienced Faculty members with industry align experience

- 360 degree overall enhancement in career with industry relevant training through "**Jignasa**" Forum (a departmental forum for all tech events and activities)
- JICM maintains state-of-the-art computer laboratories configured with the latest software.
- Dedicated Block for BCA Department with ICT enabled classrooms.

3. Curriculum & Academic Framework

Bengaluru University (BU) have recently transitioned to the **State Education Policy (SEP)** framework for the latest academic batches (effective 2024–2025 and 2025–2026).

Both frameworks share a similar modern DNA: they are designed to be flexible, skill-driven, and entirely based on the Choice Based Credit System (CBCS).

Here is the structural breakdown of how the BCA program is designed under the BU SEP/NEP framework:

1. The Multidisciplinary Credit Structure (CBCS)

Under the SEP, you don't just study "computers." The syllabus is divided into highly specific blocks to ensure holistic development:

2. Credit to Hour Mapping

The BU framework uses a standardized formula to calculate credits, shifting the focus from "years studied" to "credits earned":

- **1 Credit of Theory (L)** = 1 Hour of lecture per week.
- **1 Credit of Practical (P)** = 2 Hours of lab work per week.

- *A standard semester generally requires students to earn between 20 to 25 credits.*

3. Assessment & Examination Scheme (IA vs. SEE)

The framework strictly enforces Outcome-Based Education (OBE) through a split grading system that prevents students from just cramming at the end of the year:

Assessment Type	Weightage (Theory)	Weightage (Lab/Practical)	Details
IA (Internal Assessment)	20 Marks	10 Marks	Continuous evaluation throughout the semester via attendance, tests, assignments, live seminars, and lab record submissions.
SEE (Semester End Exam)	80 Marks	40 Marks	The final written or practical examination conducted by Bengaluru University.
Total per Subject	**100 Marks**	**50 Marks**	

4. Experiential Learning & Exit Requirements

A hallmark of both NEP and SEP is the heavy emphasis on real-world application rather than just classroom theory:

- **Mandatory Internships:** By the 5th or 6th semester, students must complete a major project or an internship (This is where JICM's Work Integrated Learning Program aligns perfectly).
- **Holistic Evaluation:** Internal assessments now heavily
- Syllabus (Drive Link)

  https://drive.google.com/drive/u/0/folders/1NrGVqCTmkIhI2wQ3iiYPNLechSQb7JCA

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4. Teaching–Learning Process

The institution actively shifts the focus from traditional, teacher-led instruction to a dynamic, student-led academic environment.

1. Student-Centric Pedagogy

Under NAAC guidelines, education must be tailored to the learner. JICM achieves this through its strict adherence to Outcome-Based Education (OBE):

- **Tailored Mentorship:** The faculty acts as facilitators rather than just lecturers. Students are evaluated early on to identify their learning paces, allowing faculty to provide bridge courses for those who need extra help, and advanced project opportunities for fast learners.
- **Flipped Classrooms:** Instead of just taking notes, students are encouraged to review fundamental concepts (like basic syntax in Python or Java) before class, reserving actual classroom time for collaborative problem-solving and logic building.

- **Skill-Driven Tracks:** By offering highly specialized tracks (AIML, Data Science, Full Stack), the pedagogy allows students to center their learning around their specific career interests rather than a generalized, rigid syllabus.

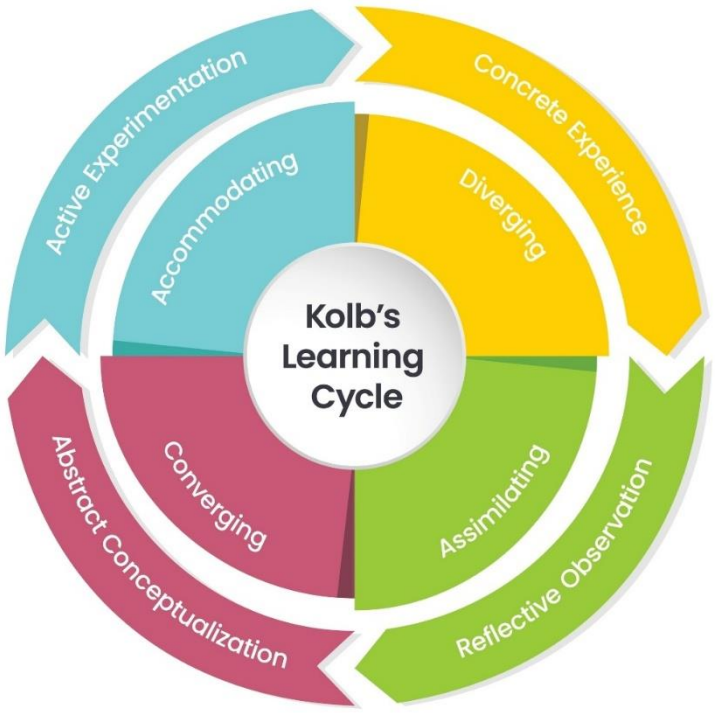
2. ICT-Enabled Classrooms

NAAC heavily weights the integration of Information and Communication Technology (ICT) into daily teaching. JICM's 11-acre campus is thoroughly equipped to support digital pedagogy:

- **Smart Infrastructure:** Classrooms are transformed into modern learning spaces equipped with high-definition projectors, and seamless Wi-Fi connectivity.
- **High-Speed Digital Labs:** JICM maintains state-of-the-art computer laboratories configured with the latest software.
- **Digital Library & E-Learning:** The library utilizes an Open Access System and provides students with free, continuous access to international e-journals, digital textbooks, and cloud-based learning resources.

3. Case-Based & Experiential Learning

To fulfil the NAAC mandate for participative and experiential learning, JICM ensures that students learn by *doing*, not just by *listening*.



- **Work Integrated Learning Program (WILP):** students work on live commercial projects, facing real corporate challenges and client deadlines.
- **Case-Study Methodology:** In classes involving software engineering and project management, faculty use real-world IT failure/success case studies (e.g., analyzing Agile framework implementations) to teach critical thinking and crisis management.
- **Live Mini-Projects:** Semester-long practical projects require students to build actual functioning web applications or predictive machine learning models rather than submitting theoretical essays.

4. Continuous Internal Assessment (CIA)

Evaluation at JICM is transparent, continuous, and aligned with the Bengaluru University (BU) Choice Based Credit System (CBCS) and State Education Policy (SEP). The NAAC criterion demands that assessments measure actual competencies over time.

5. Skill Enhancement & Value Addition

- Digital Marketing, Python Programming and AI & ML
- IBM Skill Certification, Adobe Certification, Infosys Spring Board with Campus Connect program and Soft Skill Training.
- Internship opportunities with AICTE recognized firms and MNC Companies

6. Industry Interface & Experiential Learning

- **Jignasa Forum Inauguration**
- **IIMB Visit**
- **Expert Session on IoT, AIoT, IIoT, and its applications**
- **Industry Opportunities in AI (Work shop)**
- **Expert Session on Gen AI**

BCA Events - Google Drive

7. Specializations & Electives

- **Specialization areas: AI&ML, Full Stack and Data Science**
- **DSC (Discipline Specific Core):** These are mandatory, hardcore tech subjects. *Examples: Data Structures, Operating Systems, Python, DBMS, Java.*
- **DSE (Discipline Specific Elective):** Specialized tech subjects you choose in later semesters based on your career goals. *Examples: Ethical Hacking, AI, Machine Learning, Data Analytics.*
- **SEC (Skill Enhancement Courses):** Purely practical, hands-on modules designed for immediate employability. *Examples: Office Automation Tools, R Programming Lab, Advanced Excel.*
- **OEC (Open Electives):** Subjects chosen from completely different departments (like Commerce, Arts, or Management) to build a multidisciplinary mindset.
- **AEC (Ability Enhancement Courses):** Languages (English and one regional/modern language) and communication skills to make you corporate-ready.

8. Program Outcomes (POs)

- Computational Knowledge
- Problem Analysis
- Design & Development of Solutions
- Modern Tool Usage
- Professional Ethics
- Individual and Team Work

- Communication Skills
- Project Management and Finance
- The Computing Professional & Society
- Life-long Learning

9. Career Pathways

- **Direct Tech Roles:** Step straight into the corporate sector as a Full Stack Web Developer, UI/UX Designer, or Software Testing Engineer building modern applications.
- **Data & AI Careers:** Leverage your specialized training to secure high-growth roles like Data Analyst, Junior Machine Learning Engineer, or Cloud Support Specialist.
- **Master of Computer Applications (MCA):** Deepen your technical expertise and command higher salary brackets through this standard, highly respected postgraduate route.
- **Master of Business Administration (MBA):** Bridge the gap between technology and business to target leadership roles like IT Consultant or Product Manager.
- **Specialized Diplomas & Certifications:** Rapidly upskill in niche fields like Cybersecurity or Applied AI through global tech certifications (AWS, Azure) or targeted PG Diplomas.

10. Achievements & Recognition

STUDENT_ACHIEVEMENTS - Google Drive

11. Admission Eligibility

Duration: 3 Years (6 Semesters)

Mode: Regular

Affiliation: Bangalore University

Recognised & Approved : Government of Karnataka

Approved: AICTE,New Delhi

Eligibility: Candidate eligibility shall be as per Bangalore University (BU) norms.