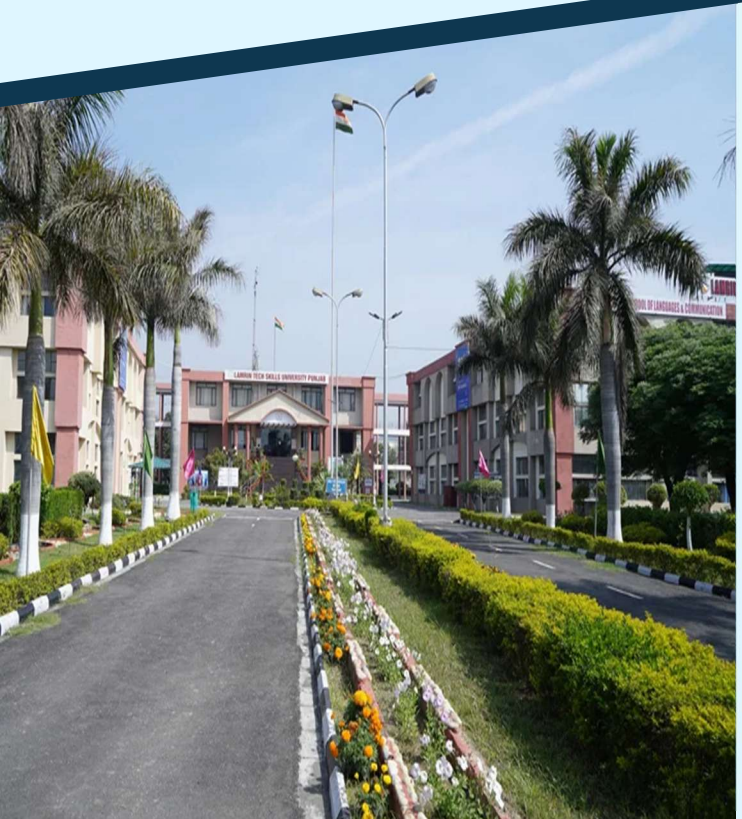
*"While an academic degree validates theoretical knowledge, technical skills demonstrate practical capability. Invest in the competencies that will define the future of your career."*



# Shape the Future with AI & ML

"Build the future of tech with a BCA in AI & ML, where software development meets machine intelligence. Learn to design, deploy, and scale the algorithms that are transforming industries worldwide."


**Address- Lamrin Tech Skills University Punjab**

**Chandigarh- Jalandhar National Highway (NH344A)**

**Postal Code-144533**

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**Contact us- +91 98554 28846, +91 83602 50986**

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**Email- office.usoc@ltsu.ac.in**

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**Website- https://www.ltsu.ac.in/university-school-of-computing**




# Lamrin Tech Skills University Punjab

## BCA AI & ML

Study Scheme

University School of Computing

Batch 2025 & 2026

Contact Here for admission-
+91 98554 28846, +91 83602 50986

# OBJECTIVES

**Specialized Knowledge:**

Offer in-depth knowledge and skills in the domain of Artificial Intelligence, including:

- **Machine Learning** – Learn supervised, unsupervised, and reinforcement learning techniques.
- **Natural Language Processing** – Develop systems that understand and interpret human language.
- **Computer Vision** – Learn image processing and pattern recognition.
- **Neural Networks and Deep Learning** – Explore deep learning models like CNNs and RNNs.
- **AI Tools and Libraries** – Gain hands-on experience with Python, TensorFlow, Keras, Scikit- learn, and others.

# Course Curriculum Overview: Year I

This curriculum provides an industry-aligned undergraduate foundation that bridges core computer applications with cloud and modern software engineering principles.

Students cultivate analytical thinking right from the start through sequential modules in problem-solving and programming using C++ and Python. The program directly boosts global employability by embedding vital professional credentials into the syllabus, including the AWS Certified Cloud Practitioner (CLF-C02) and dedicated MOOC tracks.

Instill ethical considerations in AI, including fairness, transparency, and bias mitigation.

*"Master the logic. Build the system. Certify your future."*

## Semester- I

- Introduction to Programming and Problem-Solving using C++ & Lab.
- Introduction to Artificial Intelligence.
- Mathematics for Computing.
- Network Operating Systems & Lab.
- Professional Ethics And Civic Moral.
- Environmental Science.
- Computer Fundamentals & Lab.
- Certification-I (MOOC)

## Semester- II

- Data Structures and Algorithms using C++ & Lab.
- Problem Solving using Python PBL & Lab
- E Commerce & Lab
- Computer Networks
- Computer Organization & Architecture
- Data Warehouse and Mining
- Certification-II (CLF-C02)



# PROGRAMME OUTCOMES

- **Domain knowledge:** Ability to apply Artificial Intelligence concepts such as machine learning, neural networks, and natural language processing to study and solve real-world problems in domains like healthcare, finance, and automation.
- **Tools and technology usage:** An ability to work with AI tools and technologies including Python, TensorFlow, Keras, Scikit-learn, OpenCV, and Jupyter Notebooks, with a clear understanding of their capabilities and constraints.
- **Lifelong learning:** recognize the need for and have the preparation and ability to engage in independent and life-long learning in the context of emerging AI research, tools, and ethics.
- **Individual and team work:** Function efficiently as an individual AI developer or researcher and as a collaborative member of interdisciplinary teams on AI-based projects.

# Course Curriculum Overview: Year II

Project-Based Learning (PBL): Hands-on approach integrated into Web Technologies and Application Development courses to bridge the gap between theory and industry application.

Industry Certifications: Built-in preparation for globally recognized credentials including Microsoft Azure Fundamentals (AZ-900) and Java SE 11 Developer (1Z0-819).

Career Readiness: Dedicated tracks for professional development via the Summer Internship, Industry-Aligned Mini-Projects, and intensive Employability & Soft Skills training.

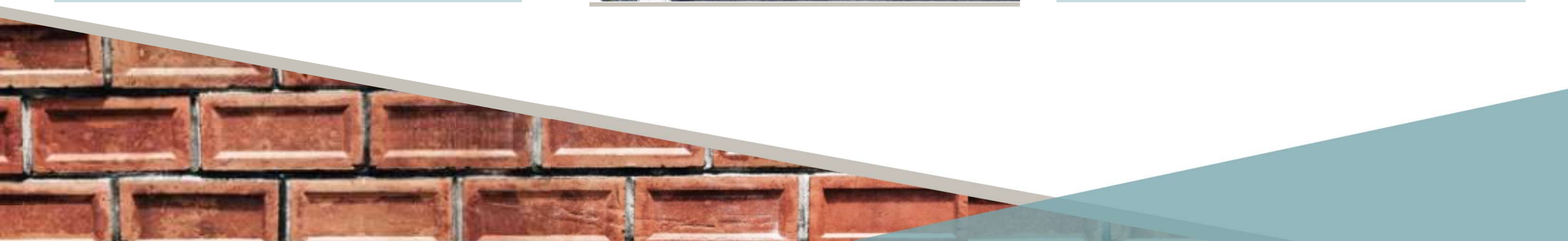



## Semester- III

- Artificial Intelligence and Machine Learning & Lab.
- Web Technologies & Lab PBL.
- Data Base Management System & Lab.
- Software Engineering.
- Design Thinking.
- Summer Internship.
- Certification-III (AZ-900).

## Semester- IV

- Computer Graphics and Multimedia Application & Lab
- Application Development using VB.Net PBL & Lab
- Cloud computing and develops
- Natural Language Processing & Lab
- Deep Learning & Neural Networks
- Employability & Soft Skills
- Mini-Project (Industry-Aligned)
- Certification-IV (1Z0-819).



# INDUSTRY & SKILLING PARTNERS

# Course Curriculum Overview: Year III

Beyond the classroom, our curriculum features a dedicated suite of hands-on milestones, global certifications, and intensive placement preparation. These courses are designed to transform technical knowledge into workplace execution.

To ensure our students stay ahead of rapid industry shifts, this module mandates the completion of a verified Massive Open Online Course (MOOC) from premier global platforms (like Coursera, edX, or NPTEL).

Promotes lifelong learning and allows students to specialize in hyper-niche, emerging technologies.

Undertaken during the semester break, this short-term industry stint gives students their first taste of a real corporate ecosystem, solving structured problems under corporate mentorship.




## Semester- V

- Career-Ready Verbal and Aptitude Skills
- Industry Internship
- Capstone Project-I
- Summer Internship

## Semester- VI

- Industry Internship
- Capstone Project-II
- Certification (MOOC)-Course