



DAYANANDA SAGAR
UNIVERSITY

SCHOOL OF ENGINEERING

B.Tech CSE (Artificial Intelligence & Machine Learning)

Build the intelligence behind tomorrow's technology

DURATION

4 Years • 8 Semesters

TOTAL CREDITS

160 Credits

ACADEMIC FOCUS

AI • ML • GenAI • Industry 4.0

PROGRAM OVERVIEW

A future-ready undergraduate program that combines **strong Computer Science foundations** with advanced Artificial Intelligence and Machine Learning skills.

CURRICULUM JOURNEY

- Semesters 1–2: Engineering fundamentals, mathematics, C, OOP and employability skills.
- Semesters 3–4: Data Structures, DBMS, Networks, Algorithms, Theory of Computation, AI and Full Stack Development.
- Semesters 5–6: Machine Learning, Deep Learning, GenAI & Prompt Engineering, Agentic AI, NLP, Computer Vision and MLOps.
- Semesters 7–8: Advanced electives, internship and Capstone Project Phase I & II.

LEARNING MODEL

- Integrated Professional Core Courses (IPCC): theory + laboratory learning.
- Skill Enhancement Courses (SEC): industry-oriented practical skills.
- Cognitive & Technical Skills (CTS): continuous aptitude, communication and employability training.

AI & ML SPECIALIZATION

- Machine Learning & Deep Learning
- Generative AI & Prompt Engineering
- Agentic AI
- Natural Language Models
- Image Processing & Computer Vision
- MLOps for Enterprises
- Cloud Computing (AWS Cloud Platform)

ELECTIVE DOMAINS

DOMAIN	SAMPLE AREAS
AI & Language	XAI • Quantum ML • AI Ethics
Robotics & Automation	Robotics • RL • ROS • Industry 5.0
Architecture & Security	IoT • Cryptography • GPU • Blockchain
Data Analytics	Data Science • Predictive Analytics • Big Data

CAREER OPPORTUNITIES

- AI Engineer / ML Engineer
- Data Scientist / Data Analyst
- Computer Vision Engineer
- NLP Engineer / Prompt Engineer
- Deep Learning Specialist
- MLOps Engineer
- AI Research Associate
- Cloud & AI Integration Specialist
- AI Product Developer / Innovator

INDUSTRIES HIRING

- Information Technology & Software Services
- Healthcare & Bioinformatics
- Finance & FinTech
- Robotics & Automation
- Smart Manufacturing / Industry 4.0
- Cybersecurity & Blockchain
- Cloud & Data Center Infrastructure
- Research Labs & Academia

- Projects and internships: real-world problem solving and innovation.

OPEN ELECTIVES

- Industrial Robotics
- Machine Learning for Healthcare
- Responsible AI & Ethics

INNOVATION & INDUSTRY INTEGRATION

- 6-week industry internship
- Long-term capstone projects
- Research, entrepreneurship and product development
- Hands-on exposure to emerging AI technologies

PROGRAM OUTCOMES

- Master AI/ML algorithms, data analytics and system design.
- Develop expertise in GenAI, Agentic AI, Deep Learning, NLP and MLOps.
- Design responsible and ethical AI solutions for real-world domains.
- Become industry-ready with coding, analytical and problem-solving skills.
- Create innovation-driven solutions through projects and internships.

WHY CHOOSE CSE (AI & ML)?

Strong CS foundations • Advanced AI skills • Industry exposure • Research & innovation • Career-ready learning

DAYANANDA SAGAR UNIVERSITY | School of Engineering | Bengaluru

“Learn. Innovate. Build the Future with AI.”