

Artificial Intelligence & Machine Learning Curriculum

Program Overview

This four-year undergraduate program offers a comprehensive education in Artificial Intelligence and Machine Learning, combining foundational computer science skills with advanced AI concepts and practical applications.

Year 1 - Foundation

- Introduction to Programming with Python
- Mathematics for Computer Science
- Data Structures and Algorithms
- Computer Organization and Architecture
- Discrete Mathematics
- Communication Skills

Year 2 - Core Computer Science

- Object-Oriented Programming in Java
- Database Management Systems
- Operating Systems
- Probability and Statistics for Data Science
- Web Technologies
- Design and Analysis of Algorithms

Year 3 - Artificial Intelligence and Machine Learning

- Introduction to Artificial Intelligence
- Machine Learning Principles
- Data Mining and Data Warehousing

- Deep Learning Fundamentals
- Natural Language Processing
- Computer Vision

Year 4 - Advanced Topics and Project

- Reinforcement Learning
- AI in Robotics
- Big Data Analytics
- Cloud Computing for AI
- Capstone Project in AI/ML
- Internship / Industry Collaboration

Career Prospects

Graduates will be equipped for careers as Machine Learning Engineers, Data Scientists, AI Researchers, and Software Developers in leading technology companies and research organizations.