

**CERTIFIED**

Artificial Intelligence and Machine Learning  
Course



**GET PREPARED GET PLACED**



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## Program Overview

This program provides foundational and advanced knowledge in Artificial Intelligence (AI) and Machine Learning (ML). It covers key concepts such as data preprocessing, supervised and unsupervised learning, neural networks, model evaluation, and deployment. Designed for students and professionals, the program blends theory with hands-on projects to develop practical skills for real-world AI/ML applications.

## Program Features

- 32 hrs of applied learning
- 24 hrs of instructor-led training
- 8 PDUs offered
- 3 simulation test papers
- 4 real-life projects Course
- Completion certificate

## Program Road Map



## Prerequisites

To best understand the Artificial Intelligence/Machine Learning course, it is recommended that you begin with these courses:

- Python Basics
- Math Refresher
- AI/ML in Real Life
- Statistics Essentials for AI/ML

## Delivery Mode

Online Bootcamp – Live virtual classroom and Online self-paced learning

## Job Roles

- AI consultant
- AI data analytics
- AI research scientist
- AI sales
- Software engineering for AI
- Data Scientist
- Machine Learning Designer
- Machine Learning Engineer
- Machine Learning Researchers
- NLP Scientist

## Skills Covered

- Linear Algebra
- Python Programming
- Clustering
- Linear Regression
- Neural Networks
- Convolutional Neural Networks (CNNs)
- Natural Language Processing (NLP)
- Deep Learning for Vision
- Deployment and MLOps

## Tools Covered



seaborn

matplotlib

pandas

# Course Curriculum

## Module 1: Introduction to AI & ML

- Overview of AI and ML
- Applications Across Industries
- Differences and Relationships
- Ethical Considerations

## Module 2: Mathematics for AI & ML

- Linear Algebra
- Calculus
- Probability & Statistics
- Information Theory

## Module 3: Programming Foundations

- Python Programming
- Libraries
- Version Control
- Software Engineering Principles

## Module 4: Supervised Learning

- Regression
- Classification
- Model Evaluation
- Hyperparameter Tuning

# Course Curriculum

## Module 5: Unsupervised Learning

- Clustering
- Dimensionality Reduction
- Association Rules
- Anomaly Detection

## Module 6: Reinforcement Learning

- Fundamentals
- Algorithms
- Policy Gradient Methods
- Applications

## Module 7: Deep Learning

- Neural Networks
- Training Techniques
- Convolutional Neural Networks (CNNs)
- Recurrent Neural Networks (RNNs)

## Module 8: Natural Language Processing (NLP)

- Text Preprocessing
- Language Models
- Sequence Models
- Applications

## Module 9: Computer Vision

- Image Processing
- Feature Extraction
- Deep Learning for Vision
- Object Detection and Segmentation

# Course Curriculum

## Module 10: Deployment and MLOps

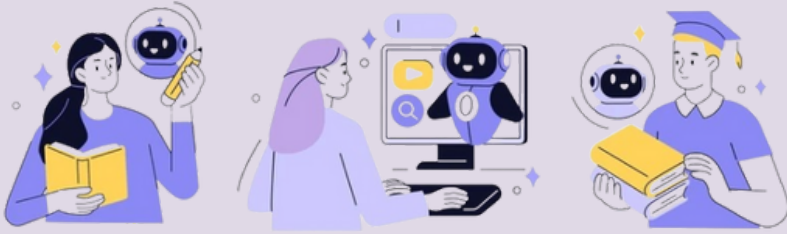
- Model Serving
- Containerization
- Continuous Integration/Deployment (CI/CD)
- Monitoring and Logging

## Module 11: Capstone Project

- Project Proposal
- Data Collection and Preprocessing
- Model Development and Evaluation
- Deployment
- Presentation



## Projects



### Intelligent Chatbot for Campus Assistance

The chatbot will use Natural Language Processing (NLP) to understand user queries and respond appropriately. It should handle FAQs related to academic schedules, exam dates, faculty contacts, library hours, and campus events. Integration with a simple backend database or API for real-time data retrieval is encouraged. Students will use transformer-based models or fine-tuned BERT variants to improve contextual understanding.

### Heart Attack Risk Prediction

A Heart Attack Risk Prediction project aims to develop a system that can accurately predict the likelihood of an individual experiencing a heart attack based on various risk factors. This project typically involves collecting and analyzing data on factors like age, cholesterol levels, blood pressure, smoking habits, and exercise patterns, and then using machine learning algorithms to build a predictive model.



## Certificate



Upon completing this Artificial Intelligence and Machine Learning course, you will receive a certificate from KOED, which will testify to your skills as an expert in CAIML.

## About KOED

### More Than Learning: A Journey We Take Together

Every learner is a spark of potential. At KOED Learning, we don't just deliver knowledge—we nurture dreams, guide growth, and walk with you every step of the way. True learning happens when theory meets practice. That's why our programs blend learning with hands-on projects and mentorship based on real industry challenges—whether it's creating live marketing campaigns, analysing real-time data, or solving business problems.

Our courses are tailored to meet today's job market needs, ensuring you're not just qualified but confident and job-ready. With mentors from leading companies like Amazon, Google, and TCS, you gain practical insights shaped by real-world experience. But our commitment doesn't stop at skill-building. We offer full placement support—resume reviews, mock interviews, career mapping—everything you need to step into your dream role with clarity and courage. Because at KOED, you're not just a student. You're a future leader, a change-maker, a story in the making.

Together, let's not just chase success—let's build it.



**8500+**

Students Placed

**1260+**

Expert Mentors

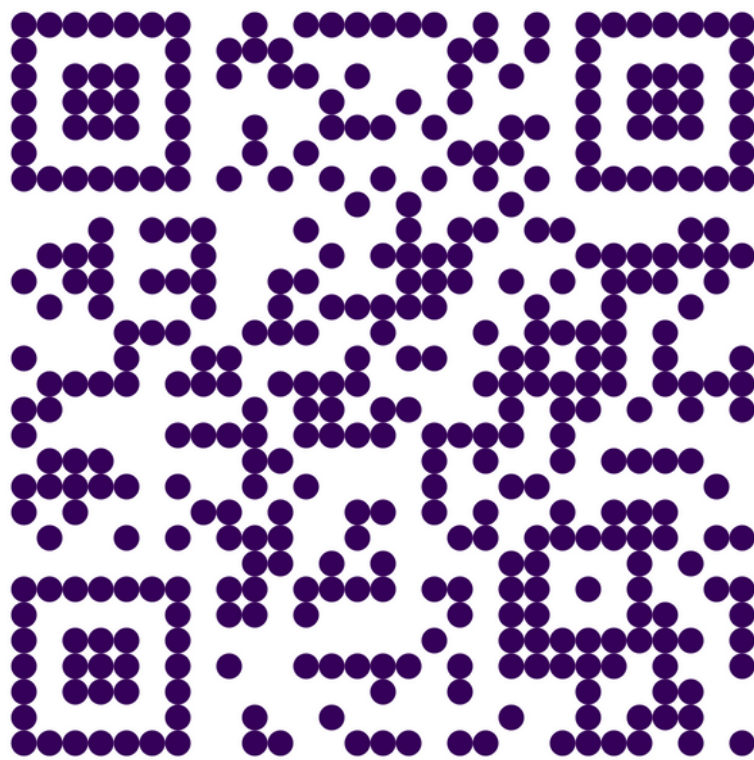
**51+**

Industry Courses

**630+**

College Reach

# SCAN FOR MORE INFORMATION



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