



AI Fundamentals (with ChatGPT)



Program Overview

The AI Fundamentals program is an introductory course designed to provide a comprehensive understanding of artificial intelligence and its impact on various industries. The course covers the basics of machine learning, natural language processing, deep learning, computer vision, and other key topics that form the foundation of AI. Students will learn how to use AI tools and techniques to solve complex problems and gain hands-on experience in implementing machine learning algorithms.

For whom

This course is open to everyone in any professional who want to learn about the potential impacts and applications of AI.

Introductory course for interested AI and machine learning.

Requirements

- Previous basic IT knowledge is helpful but not required.
- Minimum of 10 – 12 hours weekly workload
- Access to the internet
- Laptop running i5/i7 processor with at least 8 GB RAM and 520 HD space, Windows 10/11.

Delivery format

Live classes are conducted in synchronous, virtual classrooms This innovative learning environment prepares participants to enter a dynamic field while making it easier to balance their education with other responsibilities.

Advanced remote education technologies

Our program incorporates industry-leading technology to enhance your understanding of the course material and facilitate collaboration with your classmates

Synchronous, virtual, live classrooms

Our live and online classes are structured around real-time interactions. We enhance our top-tier instructional methodologies with cloud-based software built for collaboration.

Q&A Session

This learning environment promotes teamwork and collaboration that transcends the classroom. Student can request clarification on challenging concepts or ask for feedback during virtual Q&A sessions.

Hands-on projects and campaigns

Students will apply classwork to real-world problems by completing virtual projects that demonstrate their new skills. In these monthly sessions, your instructor helps you master their new skills, fills in any knowledge gaps, and sets you up for success in a remote work environment.

Duration: 10 weeks

Attendance: Online

Session: Morning, Afternoon, Evening and Weekend options

Part one

IT fundamentals



This program introduces participants to the basics of information technology. It covers essential computer hardware and software concepts, as well as an overview of computer networking, databases, web design, Artificial intelligence, and security. Participants will learn about operating systems, the internet, and common productivity software such as word processors and spreadsheets.

The program also covers basic coding concepts, including algorithms and programming languages, to provide a foundation for further study in software development. With hands-on exercises and real-world examples, participants will complete this part with a well-rounded understanding of the fundamentals of information technology.

Summary Course Outline

- Introduction to Information Technology
- Computer Hardware
- Computer Software
- Networking
- Security
- Database Management
- Artificial Intelligence (AI)
- Cloud Computing
- Web Development
- Project Management
- Conclusion

On completion, the student will be required to write an exam to proceed to the next class.

Part Two AI Fundamentals (with ChatGPT)



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Learning Outcomes

Upon completing this program, students will be able to:

- Explain the basic concepts and terminology related to AI
- Understand the various types of machine learning algorithms and how they work
- Use Python programming language and related libraries for data manipulation and analysis
- Develop machine learning models to solve real-world problems
- Understand how AI is transforming various industries, such as healthcare, finance, and retail
- Analyze ethical and legal implications of AI technology

Detailed Curriculum

Module 1:

Introduction to AI

- History and Evolution of AI
- Types of AI and their applications
- AI terminology and concepts

Module 3:

Python for Data Analysis

- Python Language Basics
- Numpy, Pandas, and Matplotlib libraries
- Data Cleaning and Preprocessing

Module 5: Natural Language Processing (NLP)

- Text Preprocessing and Cleaning
Bag of Words, TF-IDF, and Word
- Conversational AI (**ChatGPT**)
- Embeddings
- Sentiment Analysis and Topic Modeling

Module 7:

AI Ethics and Legal Issues

- Bias and Fairness in AI
- Privacy and Security Concerns
- Intellectual Property and Copyright

Module 2: Machine

Learning Fundamentals

- Supervised, Unsupervised, and Reinforcement Learning
- Linear Regression, Classification, and Clustering Algorithms
- Feature Engineering and Model Selection
- Evaluation Metrics

Module 4:

Deep Learning

- Neural Networks and their Architectures
- Convolutional Neural Networks (CNNs)
- Recurrent Neural Networks (RNNs)
- Generative Adversarial Networks (GANs)

Module 6:

Computer Vision

- Image Processing and Feature Extraction
- Object Detection and Recognition
- Face Recognition and Biometrics

Module 8:

Knowledge Mining

- Intelligent Search
- Content Extractor for unstructured Data



Certifications

Microsoft Azure AI Fundamentals

Job Opportunities

This program will equip students with the foundational knowledge and skills needed to pursue careers in various industries, including healthcare, finance, retail, and technology. After successful completion of this training, student will be equipped with the required knowledge to proceed on additional specialized training to enable them work as :

Machine Learning Engineer
Data Scientist
AI Developer
Natural Language Processing Engineer
Computer Vision Engineer
AI Ethics and Policy Analyst
Business Intelligence Analyst



Overall, this program will provide students with a strong foundation in AI, preparing them for future career opportunities in this rapidly growing field.