

Course No. 1171

AI Concepts & Technologies Training Course

AI FUNDAMENTALS
ARTIFICIAL INTELLIGENCE & APPLICATIONS

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The AI Concepts & Technologies Training Course is a comprehensive professional development program designed to provide executives, managers, specialists, and professionals with a solid understanding of Artificial Intelligence (AI), its foundational concepts, enabling technologies, and practical business applications. As Artificial Intelligence continues to reshape industries worldwide, organizations increasingly require professionals who understand the technologies driving AI innovation and how they can be strategically leveraged to improve operational performance, support digital transformation, and create sustainable business value.

Artificial Intelligence has become a critical component of organizational innovation across government entities, ministries, financial institutions, oil and gas companies, healthcare providers, manufacturing industries, telecommunications organizations, and multinational corporations. AI technologies are transforming business operations through intelligent automation, predictive analytics, computer vision, natural language processing, generative AI, robotics, and advanced decision-support systems. This course provides participants with a structured introduction to these technologies while emphasizing practical implementation, business value, and strategic adoption rather than software development or advanced programming.

Throughout the program, participants will explore the core technologies that power modern Artificial Intelligence, including Machine Learning, Deep Learning, Generative AI, Large Language Models (LLMs), Natural Language Processing (NLP), Computer Vision, intelligent automation, robotics, recommendation systems, predictive analytics, and AI-powered decision support. The course also examines data management, AI governance, ethical AI, cybersecurity considerations, regulatory compliance, enterprise risk management, and the organizational capabilities required for successful AI adoption. Practical case studies and interactive exercises enable participants to understand how AI technologies are successfully implemented across diverse industries.

The AI Concepts & Technologies Training Course also demonstrates how Artificial Intelligence supports strategic planning, operational excellence, innovation management, customer experience enhancement, business intelligence, enterprise risk management, and sustainable organizational growth. By completing this course, participants will be equipped to identify AI opportunities, evaluate emerging technologies, collaborate with technical teams, support AI-driven transformation initiatives, and contribute to responsible AI adoption across government entities, ministries, public sector organizations, banks and financial institutions, oil and gas organizations, multinational corporations, and large enterprises.

Objectives

- Analyze the core concepts and technologies that drive modern Artificial Intelligence.
- Develop a comprehensive understanding of AI technologies and their organizational applications.
- Evaluate opportunities for implementing AI technologies to improve operational efficiency and business performance.
- Apply structured methodologies to identify appropriate AI use cases across business functions.
- Design preliminary AI adoption strategies aligned with organizational objectives and digital transformation initiatives.
- Improve business decision-making through AI-powered analytics and intelligent technologies.
- Strengthen awareness of AI governance, ethics, cybersecurity, and responsible AI practices.
- Implement practical approaches for evaluating organizational readiness for AI adoption.
- Assess emerging AI technologies, implementation challenges, and associated business risks.
- Align AI initiatives with innovation strategies, operational excellence, digital transformation, and long-term organizational sustainability.

Who Should Attend

This course is designed for executives, senior managers, department managers, digital transformation leaders, innovation managers, IT managers, project managers, business analysts, data analysts, engineers, consultants, software professionals, technology specialists, and professionals seeking a comprehensive understanding of Artificial Intelligence concepts and technologies.

The program is equally valuable for strategic planning specialists, operations managers, quality managers, finance professionals, human resources managers, cybersecurity specialists, risk management professionals, compliance officers, internal auditors, organizational development specialists, customer experience leaders, and decision-makers responsible for innovation, technology adoption, business transformation, and operational improvement.

Professionals working within government entities, ministries, public sector organizations, banks and financial institutions, oil and gas companies, manufacturing industries, healthcare organizations, utility providers, telecommunications companies, logistics organizations, educational institutions, consulting firms, and multinational corporations will benefit significantly from the practical

methodologies and internationally recognized AI best practices presented throughout the course.

Learning Outcomes

- By the end of this course, participants will be able to:
- Explain the fundamental concepts and technologies of Artificial Intelligence.
- Differentiate between Machine Learning, Deep Learning, Generative AI, and Large Language Models.
- Identify practical AI technology applications across various industries and business functions.
- Evaluate opportunities to improve business performance through AI-enabled solutions.
- Understand the role of data, algorithms, and computational models in successful AI implementations.
- Apply responsible AI principles, governance frameworks, and ethical decision-making practices.
- Assess organizational readiness, implementation challenges, and AI-related risks.
- Collaborate effectively with technical teams responsible for AI development and deployment.
- Develop a high-level roadmap for adopting AI technologies within an organization.
- Support digital transformation, innovation, and organizational excellence through the effective use of Artificial Intelligence technologies.

Course Outline

DAY 01

Artificial Intelligence Foundations

- Evolution and history of Artificial Intelligence
- Core AI concepts and terminology
- Types of Artificial Intelligence
- AI ecosystem and enabling technologies

PRACTICAL

Practical workshop on identifying AI opportunities within organizations

DAY 02

Core AI Technologies

- Machine Learning fundamentals
- Deep Learning and neural networks
- Generative AI and Large Language Models (LLMs)
- Natural Language Processing (NLP), Computer Vision, and intelligent automation

PRACTICAL EXERCISE

Practical exercise on evaluating AI technology applications across business functions

DAY 03

AI Applications, Data, and Governance

- AI applications across industries
- Predictive analytics and intelligent decision support
- Data management and data quality for AI
- AI governance, ethics, cybersecurity, and regulatory compliance

WORKSHOP

Workshop on assessing organizational readiness for AI implementation

DAY 04

Implementing AI Technologies

- AI project lifecycle and implementation methodology
- Selecting high-value AI use cases
- Change management for AI adoption
- Measuring business value, AI performance, and return on investment

PRACTICAL WORKSHOP ON DESIGNING AN ENTERPRISE AI INITIATIVE

DAY 05

Enterprise AI Strategy and Future Technologies

- Building an enterprise AI strategy
- Innovation management through Artificial Intelligence
- Global best practices for AI implementation
- Emerging AI technologies and future trends

FINAL WORKSHOP

Final workshop involving the development of a comprehensive AI adoption roadmap integrating AI technologies, organizational readiness, governance, data management, responsible AI principles, cybersecurity, implementation planning, business use cases, performance measurement, continuous improvement, and digital transformation strategies to maximize innovation, operational excellence, business resilience, and long-term organizational success.

Register or Request More Information

Course page: <https://quest-training.com/courses/ai-concepts-technologies-training-course>

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