

Course No. 1257

AI Data Analytics Training Course

DATA SCIENCE & AI ANALYTICS
ARTIFICIAL INTELLIGENCE & APPLICATIONS

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The AI Data Analytics Training Course is designed to equip professionals with the knowledge and practical skills required to leverage Artificial Intelligence (AI) to transform data into strategic business intelligence. As organizations generate unprecedented volumes of structured and unstructured data, the ability to analyze, interpret, and convert this information into actionable insights has become a critical competitive advantage. This course provides a comprehensive understanding of how AI-powered data analytics enables organizations to improve operational efficiency, strengthen strategic planning, enhance customer experiences, optimize resource allocation, and support evidence-based decision-making across all business functions.

Artificial Intelligence is revolutionizing data analytics by enabling automated data preparation, intelligent pattern recognition, predictive modeling, anomaly detection, real-time analytics, natural language processing, and advanced business intelligence. Throughout the AI Data Analytics Training Course, participants will explore how Machine Learning, Generative AI, Predictive Analytics, Natural Language Processing (NLP), Data Mining, Business Intelligence (BI), Intelligent Automation, and visualization technologies can improve analytical accuracy, accelerate reporting, identify business opportunities, manage risks, and optimize organizational performance.

The course combines internationally recognized data analytics methodologies with practical AI applications relevant to government entities, ministries, public sector organizations, financial institutions, oil and gas companies, healthcare providers, telecommunications organizations, manufacturing companies, logistics providers, and multinational enterprises. Participants will learn how AI supports descriptive, diagnostic, predictive, and prescriptive analytics while improving data governance, reporting quality, operational visibility, performance management, and executive decision-making. The program also addresses data governance, data quality, cybersecurity, privacy protection, regulatory compliance, ethical AI, and responsible data management to ensure secure and trustworthy analytical practices.

Combining strategic concepts with hands-on implementation, this course enables executives, managers, analysts, and technical professionals to successfully implement AI-powered analytics initiatives across their organizations. Through practical workshops, business simulations, real-world case studies, and implementation exercises, participants will develop the capabilities to build intelligent analytics frameworks, improve business performance, enhance organizational agility, support digital transformation, and establish a sustainable data-driven culture.

Objectives

- Analyze organizational data assets to identify opportunities for AI-powered analytics implementation during the course.
- Develop a comprehensive understanding of Artificial Intelligence applications within modern data analytics.
- Evaluate business data using descriptive, diagnostic, predictive, and prescriptive analytical techniques.
- Apply Artificial Intelligence technologies to automate data preparation, analysis, visualization, and reporting.
- Design intelligent analytics solutions that support strategic planning, operational excellence, and business decision-making.
- Improve reporting quality, forecasting accuracy, and business insights using AI-powered analytical tools.
- Strengthen governance, data quality, cybersecurity, privacy, regulatory compliance, and ethical AI practices within analytics environments.
- Implement AI-powered performance measurement using KPIs, dashboards, predictive analytics, and business intelligence solutions.
- Assess organizational readiness for enterprise AI data analytics adoption.
- Align AI data analytics initiatives with digital transformation strategies, innovation, operational excellence, and long-term business objectives.

Who Should Attend

The AI Data Analytics Training Course is designed for executives, department managers, digital transformation leaders, business managers, operations managers, IT managers, data managers, business analysts, data analysts, business intelligence professionals, performance management specialists, project managers, and decision-makers responsible for improving organizational performance through data-driven strategies.

The course is particularly valuable for professionals working in government entities, ministries, public sector organizations, banks, financial institutions, insurance companies, oil and gas organizations, healthcare providers, telecommunications companies, manufacturing organizations, logistics providers, utilities, educational institutions, and multinational corporations implementing enterprise analytics and digital transformation initiatives.

It is also suitable for data scientists, reporting specialists, database professionals, business intelligence developers, ERP specialists, quality professionals, risk management specialists, consultants, innovation managers, AI implementation teams, researchers, and professionals seeking to strengthen their capabilities in AI-powered data analytics and business intelligence.

Learning Outcomes

- By the end of the AI Data Analytics Training Course, participants will be able to:
- Explain the strategic role of Artificial Intelligence in modern data analytics and business intelligence.
- Collect, prepare, clean, and organize business data for advanced analytical applications.
- Apply Machine Learning, Generative AI, Predictive Analytics, Natural Language Processing, and Data Mining techniques to solve business challenges.
- Design AI-enabled analytical models that support strategic and operational decision-making.
- Develop professional dashboards, reports, and data visualizations that communicate actionable business insights.
- Integrate AI technologies with Business Intelligence platforms, enterprise analytics solutions, and organizational reporting systems.
- Apply best practices for data governance, data quality, cybersecurity, privacy protection, regulatory compliance, and ethical AI.
- Measure business performance using AI-powered KPIs, executive dashboards, predictive models, and analytical reporting.
- Develop implementation roadmaps for enterprise AI data analytics initiatives.
- Lead AI-driven analytics transformation that improves organizational performance, innovation, operational excellence, and sustainable business growth.

Course Outline

DAY 01

Foundations of AI Data Analytics

- Introduction to data analytics and Artificial Intelligence
- The data analytics lifecycle and business value
- Types of business data and enterprise data sources
- AI applications across modern analytics environments

PRACTICAL WORKSHOP

Identifying AI opportunities within organizational data analytics

DAY 02

Data Preparation and Exploratory Analytics

- Data collection strategies and enterprise data management
- Data cleaning, transformation, and quality improvement
- Exploratory Data Analysis (EDA) and descriptive statistics
- Data visualization principles and business dashboards

PRACTICAL WORKSHOP

Preparing and exploring business datasets using AI-assisted analytical tools

DAY 03

Advanced AI Analytics Techniques

- Machine Learning fundamentals for business analytics
- Predictive analytics and forecasting models
- Natural Language Processing for text analytics
- AI-powered Business Intelligence and enterprise reporting

DAY 03 — CONTINUED

PRACTICAL WORKSHOP

Developing AI-enabled analytical models for business decision-making

DAY 04**Data Governance, Performance, and Business Intelligence**

- Enterprise data governance and data quality management
- Cybersecurity, privacy protection, and regulatory compliance
- Ethical AI and responsible data analytics practices
- Performance measurement using KPIs, executive dashboards, and AI-powered analytics

PRACTICAL WORKSHOP

Designing governance frameworks and enterprise analytics dashboards

DAY 05**Enterprise AI Data Analytics Strategy**

- Planning enterprise AI data analytics transformation initiatives
- Building a data-driven organizational culture
- Future trends in Artificial Intelligence, advanced analytics, and intelligent decision support
- Measuring the strategic value and return on investment of AI analytics initiatives

FINAL WORKSHOP

Developing a comprehensive AI Data Analytics implementation roadmap, including enterprise analytics strategy, data governance framework, data quality management plan, KPI architecture, executive dashboard design, stakeholder engagement strategy, implementation roadmap, and organizational action plan to strengthen business intelligence, accelerate digital transformation, improve operational performance, and achieve sustainable organizational success.



Register or Request More Information

Course page: <https://quest-training.com/courses/ai-data-analytics-training-course>

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