

ADVANCED ANALYTICS & ARTIFICIAL INTELLIGENCE

“Transforming Business Decision-Making Through AI-Driven Insights and Predictive Analytics”

Schedule

Date	Venue	Fees (Face-to-Face)
18 – 22 May 2026	Dubai, UAE	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

In the age of data-driven enterprises, organizations that master analytics and AI unlock a powerful competitive edge. This course bridges the gap between data science theory and real-world business application, empowering participants to leverage artificial intelligence, machine learning, and predictive analytics to drive strategy, improve operations, and innovate services.

Through a blend of technical insight and strategic guidance, this course equips professionals to design, evaluate, and implement advanced analytics frameworks and AI models tailored to business needs. Participants will engage with use cases, simulation labs, and practical tools across industries such as finance, healthcare, manufacturing, and retail.

Objectives

By the end of this course, participants will be able to:

- Understand key concepts in AI, machine learning, and advanced analytics
- Design and implement data models for prediction, classification, and segmentation
- Deploy AI tools for process automation and business intelligence
- Interpret data visualizations and dashboards for executive decision-making
- Evaluate ethical considerations, risks, and governance of AI solutions

Why Attend

- Bridge technical and business perspectives on AI and analytics
- Explore hands-on AI tools for forecasting, clustering, and automation
- Gain exposure to real-world analytics case studies across industries
- Understand how to scale data initiatives in alignment with strategy
- Stay ahead of emerging trends in artificial intelligence and data ethics

Target Audience

This program is designed for:

- Business intelligence and data analytics professionals
- IT, digital transformation, and innovation leaders
- Operations and strategy managers looking to apply AI insights
- Software engineers and developers interested in applied ML
- Consultants and analysts advising on data initiatives

Individual Benefits

Key competencies that will be developed include:

- Proficiency in AI and ML applications for real-world decision-making
- Understanding of supervised and unsupervised learning techniques
- Skill in using dashboards, analytics tools, and visual storytelling
- Ability to evaluate AI vendors, tools, and integration options
- Awareness of regulatory and ethical issues surrounding AI deployments

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved business agility through predictive and prescriptive analytics
- Better decision-making enabled by AI-enhanced insights
- Streamlined processes via intelligent automation
- Alignment of AI projects with business KPIs and digital strategy
- Enhanced compliance with governance standards in data use

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Trends in AI, analytics maturity, and digital business
- Case Studies - Industry-specific AI applications and lessons learned
- Workshops - Data model building, dashboard creation, algorithm tuning
- Peer Exchange - Sharing implementation challenges and best practices
- Tools - Power BI, Python, AutoML, and data ethics frameworks

Course Outline

Training Hours: 7:30 AM - 3:30 PM Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

Day 1: AI & Analytics Foundations

- Module 1: Evolution of AI and Advanced Analytics (07:30 - 09:30) • From traditional BI to cognitive computing and autonomous systems • Business impact and key enablers of AI adoption
- Module 2: Data Types, Sources & Preparation (09:45 - 11:15) • Structured vs unstructured data, data cleaning, transformation workflows
- Module 3: AI & Machine Learning Overview (11:30 - 01:00) • Regression, classification, clustering, reinforcement learning basics
- Module 4: Workshop - Define Analytics Use Cases (02:00 - 03:30) • Linking data objectives to business strategy

Day 2: Predictive Modeling & Business Forecasting

- Module 5: Supervised Learning Algorithms (07:30 - 09:30) • Linear/logistic regression, decision trees, support vector machines
- Module 6: Forecasting and Time-Series Analysis (09:45 - 11:15) • ARIMA, exponential smoothing, seasonality detection
- Module 7: Case Study - Demand Forecasting in Retail (11:30 - 01:00) • Apply predictive tools to solve inventory problems
- Module 8: Workshop - Build a Prediction Model (02:00 - 03:30) • Hands-on forecasting model using Python or Excel

Day 3: Unsupervised Learning & Customer Analytics

- Module 9: Clustering and Segmentation (07:30 - 09:30) • K-means, DBSCAN, hierarchical clustering in customer data
- Module 10: Dimensionality Reduction & PCA (09:45 - 11:15) • Data visualization and feature extraction
- Module 11: Text & Sentiment Analysis with NLP (11:30 - 01:00) • Analyzing social media, reviews, customer feedback
- Module 12: Workshop - Customer Segmentation Model (02:00 - 03:30) • Segment customers and create a targeting strategy

Day 4: AI Applications and Automation

- Module 13: Intelligent Automation and RPA (07:30 - 09:30) • Process mining, robotic workflows, intelligent bots
- Module 14: AI for Business Operations (09:45 - 11:15) • Case studies in finance, HR, supply chain, healthcare
- Module 15: Visualization and Storytelling with Data (11:30 - 01:00) • Power BI, Tableau, dashboards for executive insights
- Module 16: Workshop - Build an Interactive Dashboard (02:00 - 03:30) • Hands-on Power BI visualization for decision support

Day 5: Governance, Ethics & Strategy

- Module 17: AI Governance and Risk Management (07:30 - 09:30) • Model validation, explainability, bias detection, audit trails
- Module 18: Data Privacy & Ethics in AI (09:45 - 11:15) • GDPR, consent, algorithmic transparency, and fairness
- Module 19: Roadmap to Enterprise AI Maturity (11:30 - 01:00) • Scaling AI from pilots to enterprise-wide strategy
- Module 20: Final Workshop - AI Strategy Simulation (02:00 - 03:30) • Simulate AI project design and adoption roadmap

Certification

Participants will receive a Certificate of Completion in Advanced Analytics & Artificial Intelligence, verifying their skills in applying data science techniques, designing AI-powered solutions, and managing analytics initiatives aligned with business strategy and ethical standards.

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