



DATA MANAGEMENT AND BUSINESS INTELLIGENCE

Mastering Business Analytics: Advanced Techniques for Data- Driven Insights

Course code: DMBI-015

SPARK TRAINING

Professional training courses for leaders, specialists, and organizations seeking practical capability development.

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— Workshop Overview

Organizations increasingly rely on analytics to improve performance, identify opportunities, reduce risk, and make faster decisions. Advanced business analytics enables leaders and professionals to transform raw data into strategic insights through statistical analysis, predictive modelling, visualization, and optimization. This course provides participants with practical tools to apply advanced analytics techniques and turn data into measurable business value.

Why Attend

This course uses an interactive and practical approach through presentations, analytics workshops, case studies, software demonstrations, group discussions, dashboards exercises, and real business datasets.

Who Should Attend

Business Analysts
Managers and Executives
Finance Professionals
Operations Managers
Strategy Professionals
Data Professionals
Anyone responsible for data-driven decisions

— Learning Objectives

- Understand advanced business analytics concepts and applications
- Prepare and clean data for reliable analysis
- Apply statistical techniques for decision support
- Build predictive models for forecasting and planning
- Create dashboards and visual reports for stakeholders
- Use optimization methods for smarter decisions
- Communicate analytical insights clearly and effectively
- Explore future trends in AI and real-time analytics

Course Outline

**DAY
1**

Foundations of Advanced Business Analytics

- Strategic role of analytics in modern organizations
- Understanding structured and unstructured business data
- Data sources across departments and operations
- Principles of data cleaning and preparation
- Common analytics platforms such as Python, R, Tableau, and Power BI
- Ethics, privacy, and responsible analytics use
- Workshop: Preparing and validating business data

**DAY
2**

Advanced Statistical Techniques for Business

- Descriptive and inferential statistics for management decisions
- Confidence intervals and hypothesis testing
- Regression models for forecasting and insight generation
- Simple, multiple, and logistic regression applications
- Correlation versus causation in business analysis
- Managing missing values and outlier data
- Workshop: Apply regression analysis to business cases

**DAY
3**

Predictive Analytics and Machine Learning

- Role of predictive analytics in business planning
- Supervised and unsupervised learning methods
- Building decision trees and ensemble models
- Customer segmentation through clustering methods
- Forecasting trends and behavior patterns
- Measuring model performance and accuracy
- Workshop: Develop and evaluate predictive models

**DAY
4**

Data Visualization and Executive Communication

- Principles of clear and impactful visual reporting
- Choosing the right charts and visual formats
- Building dashboards for business monitoring
- Interactive dashboards using Tableau or Power BI
- Storytelling with data for executive audiences

- Presenting insights with clarity and confidence
- Workshop: Create a business dashboard presentation

DAY
5

Optimization and Strategic Decision Support

- Using optimization in business decision-making
- Linear programming concepts and applications

- Scenario analysis for uncertainty and risk
- Integrating analytics into management frameworks
- AI, automation, and real-time analytics trends
- Using data for strategic prioritisation
- Workshop: Solve optimization and planning challenges
- Final review and action planning

— Upcoming Classroom Dates

DATE	LOCATION	FEE
5 - 9 October 2026	Istanbul - Türkiye	€1,425
12 - 16 October 2026	Kuala Lumpur - Malaysia	€1,400
9 - 13 November 2026	Amsterdam - Netherlands	€2,125
16 - 20 November 2026	London - United Kingdom	€2,100
7 - 11 December 2026	Kuala Lumpur - Malaysia	€1,400
14 - 18 December 2026	Amsterdam - Netherlands	€2,125
21 - 25 December 2026	London - United Kingdom	€2,100
18 - 22 January 2027	Barcelona - Spain	€1,925

— Certificate and Registration

Participants who attend and complete the full programme receive a SPARK Training Certificate of Completion. For registration, in-house delivery, or availability questions, contact info@sparktraining.eu or +31 85 115 0004.