

# informatech



DATA MANAGEMENT AND BUSINESS INTELLIGENCE | DMBI-015

## Mastering Business Analytics: Advanced Techniques for Data-Driven Insights

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# Course content

## Why Attend

Why Attend 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.

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

## Course 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

## Target Audience

- Business Analysts
- Managers and Executives
- Finance Professionals
- Operations Managers



# Course content

## Target Audience

- Strategy Professionals
- Data Professionals
- Anyone responsible for data-driven decisions

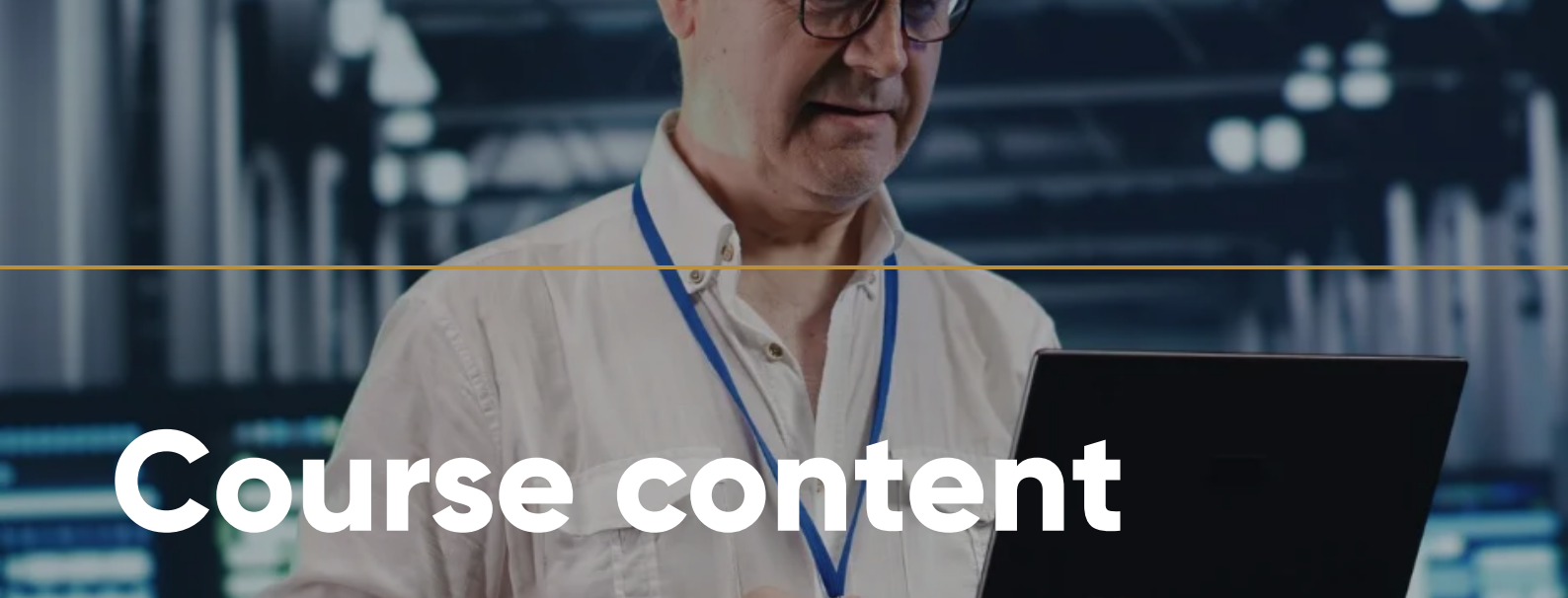
## Target Competencies

- Business Analytics
- Statistical Analysis
- Predictive Modelling
- Data Visualization
- Decision-Making
- Optimization Techniques
- Reporting Skills
- Strategic Thinking

## 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



# Course content

## Course outline

### 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



# Course content

## Course outline

- 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



# Seminar dates

## Available seminar dates

Live dates and pricing for Mastering Business Analytics: Advanced Techniques for Data-Driven Insights generated from the course details page.

Date	Location	Format	Fee
Dates on request	Venue on request	Classroom	<b>Contact us</b>
<b>Live online option</b>		Online delivery is available at €1,850.-.	