

# aractech

Global Learning for Operational Leaders



DATA MANAGEMENT AND BUSINESS INTELLIGENCE | DMBI-008

## Data Analysis Masterclass Visualization and Statistics

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# Course content

## Why Attend

In today's competitive, data-driven environment, professionals are expected to go beyond basic reporting and develop advanced analytical capabilities. This masterclass is designed to take participants from solid fundamentals to advanced proficiency in data analysis, statistics, and data visualization using modern analytical approaches and tools. Participants will learn how to extract meaningful insights from complex datasets, apply statistical reasoning, build advanced visualizations, and use analytical programming concepts to support high-impact decision-making across business and technical environments.

## Course Methodology

- This masterclass is highly practical and workshop-driven. It combines advanced theoretical concepts with hands-on exercises using real-world datasets. Participants will work through structured labs covering statistics, visualization design, and analytical problem-solving. Scenario-based learning, case studies, and guided project work will be used extensively. Depending on the training setup, tools such as Excel advanced functions, Power BI, and introductory Python/R concepts for data analysis may be incorporated.

## Course Objectives

- Apply advanced statistical techniques for data interpretation and decision-making
- Build professional-level data visualizations and dashboards
- Understand and apply regression, correlation, and forecasting concepts
- Perform structured data cleaning, transformation, and analysis workflows
- Develop analytical thinking for complex business problems
- Use basic programming concepts for data analysis (Python/R foundations)

## Target Audience

- Data Analysts and Business Intelligence Professionals
- Engineers and Technical Professionals working with data
- Business and Financial Analysts
- Project and Operations Managers

# Course outline

## Detailed course outline

Day-by-day outline for Data Analysis Masterclass Visualization and Statistics.

### Day 1 - Advanced Foundations of Data Analysis

- Role of advanced analytics in modern organizations
- Data types, structures, and analytical frameworks
- Review of data lifecycle and analytical workflows
- Introduction to analytical problem-solving models
- Overview of tools and environments (Excel, BI, programming basics)

### Day 2 - Advanced Statistical Analysis

- Probability distributions and their applications
- Correlation and regression analysis
- Hypothesis testing and statistical significance
- Data variability and uncertainty in decision-making
- Interpretation of statistical outputs in business contexts

### Day 3 - Data Visualization & Dashboard Design

- Advanced visualization principles and techniques
- Designing executive-level dashboards
- KPI selection and performance measurement
- Interactive visual analytics concepts
- Story-driven dashboard development

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### Day 4 - Forecasting & Analytical Modeling

- Introduction to forecasting techniques
- Trend analysis and predictive thinking
- Basic regression-based forecasting
- Scenario analysis and decision modeling
- Applying analytics to real-world business cases

### Day 5 - Advanced Programming & Capstone Project

- Introduction to programming concepts for data analysis (Python/R basics)
- Data manipulation and analysis workflow concepts
- Building an end-to-end analytical project
- Presenting insights and recommendations
- Final masterclass project presentation and review

# Seminar dates

## Available seminar dates

Live dates and pricing for Data Analysis Masterclass Visualization and Statistics generated from the course details page.

Date	Location	Format	Fee
18 - 22 May 2026	Munich	Classroom	€2,940
8 - 12 June 2026	Istanbul	Classroom	€1,995
6 - 10 July 2026	London	Classroom	€2,975
10 - 14 August 2026	Barcelona	Classroom	€2,695
14 - 18 September 2026	Paris	Classroom	€3,150
5 - 9 October 2026	Frankfurt	Classroom	€2,275
16 - 20 November 2026	London	Classroom	€2,695

**Live online option**

Online delivery is available at €1,250.