

Data Analytics for Managerial Decision Making

Professional training programme



SPARK TRAINING

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

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— Workshop Overview

This Data Analytics for Managerial Decision Making training course will illustrate how data analytics can enhance management decisions by supporting strategic initiatives, informing policy, and guiding operational choices. The training course focuses on practical applications, accurate interpretation of findings, and integrating quantitative reasoning into decision-making. Participants will gain confidence in using evidence-based information to make informed decisions, ultimately improving their management practices and strategic outcomes. This training course will feature:

- Discussions on applications of data analytics in management
- The importance of data in data analytics
- Applying data analytical methods through worked examples
- Focusing on management interpretation of statistical evidence
- How to integrate statistical thinking into the work domain

Why Attend

This training course will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The daily workshops will be highly interactive and participative. This involves regular discussion of applications as well as hands-on exposure to data analytics

Who Should Attend

Professionals in management support roles
Analysts who typically encounter data / analytical information regularly in their work environment
Those who seek to derive greater decision making value from data analytics

— Learning Objectives

- Appreciate data analytics in a decision support role
- Explain the scope and structure of data analytics
- Apply a cross-section of useful data analytics
- Interpret meaningfully and critically assess statistical evidence
- Identify relevant applications of data analytics in practice

Course Outline

**DAY
1****Day One: Setting the Statistical Scene in Management**

- Introduction; The quantitative landscape in management
- Thinking statistically about applications in management (identifying KPIs)
- The integrative elements of data analytics
- Data: The raw material of data analytics (types, quality and data preparation)
- Exploratory data analysis using excel (pivot tables)
- Using summary tables and visual displays to profile sample data

**DAY
2****Day Two: Evidence-based Observational Decision Making**

- Numeric descriptors to profile numeric sample data
- Central and non-central location measures
- Quantifying dispersion in sample data
- Examine the distribution of numeric measures (skewness and bimodal)
- Exploring relationships between numeric descriptors
- Breakdown analysis of numeric measures

**DAY
3****Day Three: Statistical Decision Making – Drawing Inferences from Sample Data**

- The foundations of statistical inference
- Quantifying uncertainty in data – the normal probability distribution
- The importance of sampling in inferential analysis
- Sampling methods (random-based sampling techniques)
- Understanding the sampling distribution concept
- Confidence interval estimation

**DAY
4****Day Four: Statistical Decision Making – Drawing Inferences from Hypotheses Testing**

- The rationale of hypotheses testing
- The hypothesis testing process and types of errors
- Single population tests (tests for a single mean)
- Two independent population tests of means
- Matched pairs test scenarios
- Comparing means across multiple populations

DAY
5

Day Five: Predictive Decision Making - Statistical Modeling and Data Mining

- Exploiting statistical relationships to build prediction-based models
- Model building using regression analysis
- Model building process – the rationale and evaluation of regression models
- Data mining overview – its evolution
- Descriptive data mining – applications in management
- Predictive (goal-directed) data mining – management applications

— Upcoming Classroom Dates

DATE	LOCATION	FEE
12 - 16 October 2026	Amsterdam - Netherlands	€2,125
9 - 13 November 2026	Istanbul - Türkiye	€1,425
14 - 18 December 2026	Rome - Italy	€2,125
18 - 22 January 2027	Kuala Lumpur - Malaysia	€1,400
15 - 19 February 2027	Barcelona - Spain	€1,925
15 - 19 March 2027	London - United Kingdom	€2,100
19 - 23 April 2027	Munich - Germany	€2,125
17 - 21 May 2027	Amsterdam - Netherlands	€2,125

— 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.