

aractech

Global Learning for Operational Leaders



IT MANAGEMENT AND CYBER SECURITY

Data Analytics for Managerial Decision Making

Contact

+31 85 7444446
info@aractech.com
<https://aractech.com>

Address

Waarderweg 50, 2031PB Haarlem - Netherlands.

Course content



Why Attend

Course Introduction

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.

Course Methodology

Course Objectives

Target Audience

Course outline



Detailed course outline

Day-by-day outline for Data Analytics for Managerial Decision Making.

Day 1 - 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 - 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

Course outline



Detailed course outline

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Day 3 - 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 - 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

Course outline



Detailed course outline

Day-by-day outline for Data Analytics for Managerial Decision Making.

Day 5 - 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

Seminar dates



Available seminar dates

Live dates and pricing for Data Analytics for Managerial Decision Making generated from the course details page.

Date	Location	Format	Fee
15 - 19 June 2026	Kuala Lumpur	Classroom	€1,575
20 - 24 July 2026	Barcelona	Classroom	€2,695
3 - 7 August 2026	London	Classroom	€2,940
7 - 11 September 2026	Munich	Classroom	€2,415
12 - 16 October 2026	Amsterdam	Classroom	€2,975
9 - 13 November 2026	Istanbul	Classroom	€1,995
14 - 18 December 2026	Rome	Classroom	€2,975

Live online option

Online delivery is available at €1,250.