informatech




IT MANAGEMENT AND CYBER SECURITY | COURSE

# Data Analytics for Managerial Decision Making

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# 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.

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

## Course Methodology

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 techniques using Microsoft Excel.

Delegates are strongly encouraged to bring and analyse data from their own work domain. This adds greater relevancy to the content.

Emphasis is also placed on the valid interpretation of statistical evidence in a management context.

### Who should Attend?




# Course content

## Course Methodology

This training course is suitable to a wide range of professionals but will greatly benefit:

• 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

## Course Objectives

By the end of this training course, participants will be able to:

• 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 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 Two: Evidence-based Observational Decision Making




# Course content

## Course outline

- 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 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 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




# Course content

## Course outline

### 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




# 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 |
|---|---|---|---|
| 14 - 18 December 2026 | Rome - Italy | Classroom | **€3,400.-** |
| 18 - 22 January 2027 | Kuala lumpur - Malaysia | Classroom | **€1,800.-** |
| 15 - 19 February 2027 | Barcelona - Spain | Classroom | **€3,080.-** |
| 15 - 19 March 2027 | London - U.K | Classroom | **€3,360.-** |
| 19 - 23 April 2027 | Munich - Germany | Classroom | **€3,400.-** |
| 17 - 21 May 2027 | Amsterdam - Netherlands | Classroom | **€3,400.-** |
| 21 - 25 June 2027 | Istanbul - Turkey | Classroom | **€2,280.-** |
| 19 - 23 July 2027 | Rome - Italy | Classroom | **€3,400.-** |
| 16 - 20 August 2027 | Kuala lumpur - Malaysia | Classroom | **€1,800.-** |
| 20 - 24 September 2027 | Barcelona - Spain | Classroom | **€3,080.-** |
| 18 - 22 October 2027 | London - U.K | Classroom | **€3,360.-** |
| 15 - 19 November 2027 | Munich - Germany | Classroom | **€3,400.-** |
| 20 - 24 December 2027 | Amsterdam - Netherlands | Classroom | **€3,400.-** |

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|---|---|
| **Live online option** | Online delivery is available at €1,850.-. |