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Global Learning for Operational Leaders



DATA MANAGEMENT AND BUSINESS INTELLIGENCE | DMBI-012

Foundations of Data and Models Regression Analytics

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Course content

Why Attend

Organizations today rely heavily on data to guide decisions, improve performance, and predict future outcomes. Understanding how to structure data and build reliable statistical models is a critical skill across all industries.

This course provides a strong foundation in data handling and regression modeling, enabling participants to interpret relationships between variables, build predictive models, and make evidence-based decisions using structured analytical methods.

Course Methodology

- Step-by-step explanation of key statistical concepts
- Practical exercises using structured datasets
- Guided model building and interpretation sessions
- Interactive discussions to reinforce learning
- Focus on real-world analytical thinking and application

Course Objectives

- Understand the fundamentals of data types and structures
- Apply basic statistical techniques for data analysis
- Build and interpret simple and multiple regression models
- Identify relationships between variables in datasets
- Evaluate model performance and accuracy
- Use regression outputs to support decision-making

Target Audience

- This course is suitable for:
- Data Analysts and Junior Data Scientists
- Business Analysts



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Course outline

Detailed course outline

Day-by-day outline for Foundations of Data and Models Regression Analytics.

Day 1 - Introduction to Data and Statistical Foundations

- Understanding data types (categorical, numerical, structured)
- Data collection and preparation basics
- Descriptive statistics (mean, median, variance, etc.)
- Data visualization fundamentals
- Correlation and relationship between variables
- Introduction to analytical thinking

Day 2 - Introduction to Regression Analysis

- Concept of regression modeling
- Simple linear regression
- Relationship between dependent and independent variables
- Interpreting slope and intercept
- Error terms and model fit
- Practical exercises using sample data



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Day 3 - Multiple Regression Analysis

- Expanding to multiple variables
- Building multiple regression models
- Understanding coefficients and variable impact
- Multicollinearity concept (intro level)
- Model interpretation techniques
- Hands-on regression modeling practice

Day 4 - Model Evaluation and Performance

- Measuring model accuracy (R^2 and error metrics)
- Residual analysis and interpretation
- Detecting model weaknesses
- Overfitting and underfitting concepts
- Improving model reliability
- Basic validation techniques



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Day 5 - Practical Applications of Regression Modeling

- Applying regression to real-world datasets
- Forecasting and prediction basics
- Using regression outputs for decision-making
- Common pitfalls in data analysis
- Best practices in reporting results
- Final practical exercise and review

Seminar dates

Available seminar dates

Live dates and pricing for Foundations of Data and Models Regression Analytics generated from the course details page.

Date	Location	Format	Fee
11 - 15 May 2026	Munich	Classroom	€2,415
8 - 12 June 2026	Amsterdam	Classroom	€2,975
6 - 10 July 2026	London	Classroom	€2,940
10 - 14 August 2026	Munich	Classroom	€2,415
14 - 18 September 2026	Vienna	Classroom	€2,975
5 - 9 October 2026	Barcelona	Classroom	€2,695
16 - 20 November 2026	Paris	Classroom	€3,150

Live online option

Online delivery is available at €1,250.