



Digital Transformation and Innovation

Data Science and Big Data Analysis

Course Introduction

Data science and big data analytics have been one of the vital key players in the business world nowadays. Companies are using trend analysis to make critical decisions to improve consumer engagement, corporate performance, and boost revenue. While Big data analytics allows companies to analyze data and develop business intelligence solutions.

Methods of utilizing data science

This training course is designed to provide participants with the essential concepts, models, and methods of utilizing data science and big data analytics in order to advance in the business environment. This course will focus on topics such as methods of identifying requirements for the application of data science, how these can be adopted, technologies available, selecting analytical models appropriate to provide valuable data, and how to achieve better business results using Big Data and Analytics.

Target Audience

- Data Analysts
- Data Engineers
- Business and technology leaders
- Business Unit Managers
- Business Development Consultants
- General Managers and Senior Leaders

Learning Objectives

- Gain a comprehensive understanding of the role of big data in the business.

- Recognize when to apply data analytics and the best methods of approach for application.
- Explore methods and models for statistical evaluation and the advance methods and models for big data analytics.
- Select appropriate models and technology for big data.
- Identify and apply best practices in data analytics.

Course Outline

• Day 01

Big Data Analytics

- Current Practices and trends in Big Data Analytics
- Business Intelligence v Data Science
- Analytical Architecture for Big Data
- Roles for Big Data within the Technology and Commercial Enterprise
- Key Drivers for Big Data Analytics

• Day 02

Data Analytics Models and Lifecycle

- Data Analytics Lifecycle
- Stage 1 - Discovery
- Stage 2 - Preparation of Data
- Stage 3 - Model Planning and Review
- Stage 4 - Model Creation
- Stage 5 - Communication Plan
- Stage 6 - From Planning to Operation

• Day 03

Data Analytical Methods and Programs

- Overview of R Framework

- Overview of Big Data Analytics
- Exploratory Data Analysis
- Statistical methods of Evaluation
- Advanced Methods of Clustering
- Advanced Theory and Methods of Association Rules
- Advanced Theory and Methods of Regression

• Day 04

Advanced Theory and Methods Overview

- Advanced Analytical Theory of Classification
- Advanced Analytical Theory of Time Series Analysis
- Advanced Analytical Theory of Textual Analysis
- Technology and Tools for Advanced Data Analytics
- Case Studies

• Day 05

IMPLEMENTING ANALYTICS WITHIN YOUR ORGANIZATION

- Expanding analytic capabilities
- Breaking down Big Data Analytics into manageable steps
- Integrating analytics into current business processes
- Reviewing Spark, MLib and Mahout for machine learning

Technology, Tools and Achieving Results

- Unstructured Data Analytics
- Advanced Analytical Tools in Database Analytics
- How integrate Data Analytics
- Current Best Practice Management and Approach for Project Delivery
- Data Visualization Overview

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 5, 2025	May 9, 2025	5 days	4950.00 \$	Spain - Barcelona
Aug. 4, 2025	Aug. 8, 2025	5 days	2150.00 \$	Virtual - Online
Nov. 3, 2025	Nov. 7, 2025	5 days	4250.00 \$	UAE - Abu Dhabi