

Beginning Data Science for Managers

Understand tools, project teams and delivery through guided demonstrations

FA-0757 · 3 days

Data & Analytics · AI for Leaders & Business

Introduction

Build a practical managerial understanding of data-science projects without deep programming. Explore the data workflow, common tools, model use and the infrastructure and team skills required to deliver a project.

Guided demonstrations and a small project walkthrough make the technologies tangible. The course also provides a starting point for learners who later want to study programming and analytics in greater depth.

Learning outcomes

- Explain data sourcing, acquisition, preparation and cleaning.
- Recognise the roles of analytics, machine learning, AI and big-data infrastructure.
- Observe a simple data workflow and model demonstration using selected tools.
- Ask informed questions about technical requirements, predictions and visualisation.
- Identify complementary team skills and compare project-delivery approaches.
- Describe a data-science project from preparation to implementation without assuming expert development skills.

Prerequisites

Basic computer and internet skills and an introductory awareness of data-science goals; prior programming is not required.

A computer with reliable internet and access to prepared examples. KNIME and one selected language environment (R or Python) are used; a prepared virtual machine may support infrastructure demonstrations where needed.

Training outline

1. Day 1 — Data and tools

- Data Source
- Acquisition
- Data Preparation
- Data Cleaning
- Tools
- Guided orientation to R or Python, not both as full programming tracks.
- Use KNIME nodes to inspect a small preparation workflow.
- View and communicate results using Tableau or Power BI.

2. Day 2 — Models, AI and infrastructure

- Machine-learning models, implementation, prediction and visualisation through selected examples.
- AI application demonstrations: natural-language and image-processing tasks.
- Big-data landscape: Hadoop, YARN resource management, Linux, Hive querying, Kafka event streaming and Spark processing.
- Discuss scale, technical requirements and specialist skills; infrastructure topics are demonstrations rather than cluster installation training.

3. Day 3 — Teams and delivery

- Front end
- Backend
- Methodologies
- Team
- Agile
- Waterfall
- Delivery
- Implementation
- Identify team roles and assess the skills needed for the proposed project.

- Compare Agile and waterfall approaches in context.
- Walk through a small data-science project, interpret outputs and discuss delivery and implementation decisions.