

PeopleCert Data Science: Foundation

OEM: PeopleCert • Code: PC-DS-FOUND



COURSE DESCRIPTION

Build a solid understanding of Data Science fundamentals and learn how to extract insights from data to solve business problems, enhance efficiency, and drive informed decisions.

AUDIENCE PROFILE

- Suitable for all business and IT professionals
- Popular among professionals who have advanced to roles such as: Software Engineer, Software Developer, Research Assistant, Project Manager, Account Manager, Administrative Assistant, Business Analyst, Sales Associate

PREREQUISITES

- No prior knowledge or experience is required.

COURSE OBJECTIVES

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

- Understand and apply the concepts covered under "The fundamentals of Data Science"
- Understand and apply the concepts covered under "Key concepts of programming"
- Understand and apply the concepts covered under "Key concepts of data management"
- Understand and apply the concepts covered under "Statistics and Probability"
- Understand and apply the concepts covered under "Machine Learning fundamentals"
- Understand and apply the concepts covered under "Artificial Intelligence fundamentals"
- Understand and apply the concepts covered under "Key concepts of visualization"
- Understand and apply the concepts covered under "Data governance, ethics, privacy, and protection"

COURSE OUTLINE

Module 1: The fundamentals of Data Science

- Learn core data science principles, tools, and techniques to process structured and unstructured data into actionable insights.

Module 2: Key concepts of programming

- Understand programming essentials like variables, functions, and loops, using R or Python for data analysis and modeling.

Module 3: Key concepts of data management

- Explore data management techniques, including relational databases, NoSQL, and business intelligence fundamentals.

Module 4: Statistics and Probability

- Grasp core statistical methods and probability theory, and how they support effective data analysis and prediction.

Module 5: Machine Learning fundamentals

- Discover how machines learn from data using supervised, unsupervised, and reinforcement learning techniques.

Module 6: Artificial Intelligence fundamentals

- Learn AI concepts like natural language processing, computer vision, and how AI supports decision-making and automation.

Module 7: Key concepts of visualization

- Master the art of visual storytelling through charts, graphs, and dashboards to present data with clarity and impact.

Module 8: Data governance, ethics, privacy, and protection

- Understand ethical data use, governance policies, and how to ensure data privacy and protection, including GDPR compliance.