

Data Science Essentials

Modality: On Demand

Duration: 24 Hours

ABOUT THIS COURSE

Demand for data science talent is exploding. Develop your career as a data scientist, as you explore essential skills and principles with experts.

In this data science course, you will learn key concepts in data acquisition, preparation, exploration, and visualization taught alongside practical application oriented examples such as how to build a cloud data science solution using Microsoft Azure Machine Learning platform, or with R, and Python on Azure stack.

Course Objective:

- Explore the data science process
- Probability and statistics in data science
- Data exploration and visualization
- Data ingestion, cleansing, and transformation
- Introduction to machine learning
- The hands-on elements of this course leverage a combination of R, Python, and Microsoft Azure Machine Learning

Prerequisites:

- Familiarity with basic mathematics
- Introductory level knowledge of either R or Python

Course Outline:

Module 1: Introduction to Data Science

- Principles of Data Science
- Data Science Technologies
- Lab

Module 2: Probability and Statistics for Data Science

- Probability and Random Variables
- Introduction to Statistics
- Lab

Module 3: Simulation and Hypothesis Testing

- Simulation
- Hypothesis Testing
- Lab

Module 4: Exploring and Visualizing Data

- Exploring Data
- Visualizing Data
- Lab

Module 5: Data Cleansing and Manipulation

- Data Ingestion and Flow
- Data Cleansing
- Lab

Module 6: Introduction to Machine Learning

- Getting Started with Machine Learning
- Publishing a Machine Learning Web Service
- Lab

Final Exam

- Final Challenge?