

# Python Data Science: NumPy, Pandas & Seaborn

Learn to process and analyse data with NumPy and Pandas, then visualise it using Matplotlib and Seaborn.

**3 Days**

24 HOURS

**17**

TOPICS

## COURSE OVERVIEW

This course covers Python basics and Jupyter Notebooks before introducing NumPy for numerical processing and Pandas for data manipulation. It looks at working with data from Excel, CSV and SQL sources, converting datasets to dataframes, altering data with custom functions, handling missing data and aggregating data. It then covers creating fully customizable plots with Matplotlib, including custom figures and axes, and building statistical plots with Seaborn such as scatter plots, distribution plots and box plots.

## WHO THIS COURSE IS FOR

Target group

**Intermediate Python developers looking to use Python to explore and visualize large or complex data sets**

## PREREQUISITES

To be successful in this course, learners should have the following:

- Foundational Python skills and knowledge
- Level of knowledge and experience gained from Introduction to Python

## What You Will Learn

- Learn how to use data science with Python
- Create data pipeline workflows to analyze, visualize, and gain insights from data
- Build a portfolio of data science projects with real world data
- Analyze your own data sets and gain insights through data science
- Master critical data science skills
- Replicate real-world situations and data reports
- Learn NumPy for numerical processing with Python
- Conduct feature engineering on real world case studies
- Learn Pandas for data manipulation with Python
- Learn Matplotlib to create fully customized data visualizations with Python
- Learn Seaborn to create beautiful statistical plots with Python
- Construct a modern portfolio of data science resume projects
- Get set-up quickly with the Anaconda data science stack environment

## COURSE SYLLABUS

## 17 Topics

## TOPICS

- |                                              |                                           |
|----------------------------------------------|-------------------------------------------|
| ■ Python Basics                              | ■ Handle missing data                     |
| ■ Jupyter Notebooks                          | ■ Aggregate data                          |
| ■ NumPy                                      | ■ Matplotlib for fully customizable plots |
| ■ Pandas                                     | ■ Implement custom figures and axis       |
| ■ Data: Excel                                | ■ Seaborn for statistical plots           |
| ■ CSV                                        | ■ Scatter Plots                           |
| ■ SQL                                        | ■ Distribution Plots                      |
| ■ Convert datasets to dataframes             | ■ Box Plots                               |
| ■ Alter specific data using custom functions |                                           |

#### WHAT IS INCLUDED

## Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

#### ABOUT KOENIG

## Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

#### FLEXIBLE DELIVERY

## Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

## Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit [koenig-solutions.com](https://koenig-solutions.com)

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