XCELERATE TRAINING INSTITUTE

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INFORMATION TECHNOLOGY

Python for Data Analysis Training Course

A Practical Introduction for Analysts and Non-Programmers

DURATION	LANGUAGE	FORMAT	COURSE CODE
5 days	English or Arabic	Classroom / Online	TTC-104

Upcoming dates

Dates	Venue	Format	Fee
22 – 26 Feb 2027	Barcelona	Classroom	€4,800
5 – 9 Apr 2027	Berlin	Classroom	€4,800
14 – 18 Jun 2027	Boston	Classroom	€5,500
16 – 20 Aug 2027	Cairo	Classroom	€3,600
25 – 29 Oct 2027	Casablanca	Classroom	€3,600
6 – 10 Dec 2027	Dubai	Classroom	€3,800

Register or ask a question

Online: x8ti.com/course/python-for-data-analysis-training-course/

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Python for Data Analysis Training Course

Introduction

Python has become the most popular language for data analysis because it can handle large datasets, automate repetitive work and produce advanced analysis and charts. It is also far easier to learn than many professionals expect.

This beginner-friendly course teaches professionals to use Python for real analysis tasks: loading and cleaning data, analysing it with pandas, creating visualisations and automating reports. No previous programming experience is required.

Learning Objectives

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

- Write basic Python code with confidence
- Load, clean and combine data with pandas
- Summarise and analyse data using grouping and statistics
- Create clear charts and visualisations
- Automate repetitive data and reporting tasks
- Use AI assistants to write and debug Python code

Training Methodology

This course combines short expert presentations with practical exercises, case studies from the Gulf and international organisations, group discussions and work with real templates and tools. Participants are encouraged to bring examples from their own work so that the learning can be applied immediately.

Participants code along in notebooks from the first hour, working on business datasets, with an AI coding assistant introduced for support.

Benefits for Your Organisation

- Faster analysis of larger datasets
- Automation of manual reporting work
- Stronger internal analytics capability
- Reduced reliance on external specialists
- Better evidence for decisions

Benefits for You

- A practical, in-demand technical skill
- Ability to automate your own tasks
- Confidence handling large data files
- A foundation for data science and AI
- Reusable code templates

Who Should Attend

This course is designed for:

- Business, financial and data analysts
- Excel power users
- Researchers and economists
- Engineers working with data
- Professionals moving into analytics roles

Course Outline

Day 1: Python Basics

- Setting up Python and notebooks
- Variables, data types and lists
- Conditions and loops
- Functions and reusing code
- Using AI assistants to help write code

Day 2: Working with Data in pandas

- Reading Excel and CSV files
- Selecting, filtering and sorting data
- Cleaning missing and inconsistent values
- Creating new columns
- Joining and merging tables

Day 3: Analysing Data

- Grouping and aggregating
- Pivot tables in pandas
- Descriptive statistics
- Working with dates and time series
- Finding patterns and outliers

Day 4: Visualising Data

- Charts with matplotlib and seaborn
- Choosing the right chart
- Formatting charts for reports
- Interactive charts
- Telling a story with data

Day 5: Automation and Project

- Automating reports to Excel and PDF
- Processing many files at once
- Introduction to machine learning concepts
- Best practices and next steps

- Final project: an end-to-end analysis

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Registration Form

Python for Data Analysis Training Course

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

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Register online
Open the course page