orsys TRAINING 50 YEARS

Course : Python, automate your file processing

Overcome the limits of Excel, CSV files with Python
Practical course - 3d - 21h00 - Ref. PYB
Price : 1940 CHF E.T.

★★★★½   **4,1 / 5**

You've mastered Excel and its limitations, and you want to extract data, filter it, rework it and present it in an attractive way. Python makes it possible. Without being a developer, this course will help you learn the basics so you can set up automatic tasks to make your work easier.

◎ Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Python basics
- ✓ Excel/CSV/SQL data manipulation with Python
- ✓ Visualizing data with Python

Intended audience

Controllers, project managers, accountants, finance managers, HR managers and anyone who has mastered Excel macros and wants to develop results automatically.

Prerequisites

Excel practice. Know how to program with Excel macros or know algorithmics.

Practical details

Exercise
Numerous guided exercises ensure rapid learning.

Teaching methods
Active teaching. Demonstrations by the trainer help participants get to grips with the subject.

Course schedule

PARTICIPANTS
Controllers, project managers, accountants, finance managers, HR managers and anyone who has mastered Excel macros and wants to develop results automatically.

PREREQUISITES
Excel practice. Know how to program with Excel macros or know algorithmics.

TRAINER QUALIFICATIONS
The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS
The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Program principles

- What is a program?
- Writing a program: syntax and instructions.
- What is a function, a bookshop? Its role, its use.
- Introduction to the Python language and its ecosystem.

Exercise
Write and run your first Python program.

2 Language fundamentals and Python

- What is a variable?
- Variable types: integers, reals, strings...
- Declaration, definition and initialization of a variable.
- The different operators.
- Control structures (loops, tests).
- Advanced data structures (tuples, lists, dictionaries).
- The most useful functions.

Exercise
Various exercises to familiarize you with syntax: variable manipulation, operator manipulation, selection and loops.

3 Python and data processing

- Using a Python distribution.
- Libraries for starting a data analysis project.
- Use Jupyter notebooks to explore your data.
- Import and export data from various sources (text, CSV, JSON, Excel, etc.).
- Manipulate data with Pandas (search, transformation, simple calculations).

Exercise
Read an Excel file, select rows, search and calculate, save results in another file format. Data aggregation, pivots and joins.

4 Data visualization with Python

- Draw curves, histograms and other graphs.
- Visualize your data on an interactive map with Folium.
- Interactive graphics with panel.

Exercise
Write Python scripts to implement various graphics.

Dates and locations

REMOTE CLASS
2026 : 25 Mar., 1 June, 16 Sep., 2 Dec.