

# 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.

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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.

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at [psh-accueil@orsys.fr](mailto:psh-accueil@orsys.fr) to review your request and its feasibility.