

# Master Class: Advanced Python (Associate Training) (PYTHON03)

ID PYTHON03 Price CHF 2,550.—(excl. VAT) Duration 3 days

## Who should attend

Entry-level Python developers who want to deepen their knowledge and skills and Python developers who want to make the step from script to application.

## This course is part of the following Certifications

Certified Professional in Python Programming 1 (PCPP1)  
Certified Associate in Python Programming (PCAP)  
Certified Professional in Python Programming 2 (PCPP2)

## Prerequisites

Previous course [Entry into Programming with Python \(PYTHON01\)](#) or [Python for Software Developers \(PYTHON02\)](#) or equivalent knowledge

## Course Objectives

After this course you will be able to use Python in a deeper and more efficient way to develop more complex scripts or whole applications.

## Course Content

### 1. Organizing and Structuring Projects in Python

- Virtual Python environment
- Version management

### 2. Modularisation

- Global modules
- Local modules
- Packages
- Importlib

### 3. Iterators

- Comprehension
- Chained lists
- Generators

### 4. Object-Oriented Programming in Python

- Classes and objects
- Access to attributes
- Inheritance

### 5. Naming Conventions and Best Practices

### 6. System Functions

- The modules os, sys, psutil
- Standard input and output
- Working with files

### 7. Working with Third-Party Packages

- Numpy
- Matplotlib
- Pandas
- Scipy
- etc.

### 8. Testing and Tuning

- Automated testing
- Logging
- Performance Analysis
- Optimization

### 9. Simple Web Applications with Python

- Django

### 10. Outlook Machine Learning with Python

### 11. Outlook Network Programming with Python

### 12. Python Hosting

- Program Distribution
- Python in SQL Server
- Python in Power BI

### 13. Programming Style, Best Practices

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## Training Centres worldwide



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