

# Python Training: Python Programming for Pros (PYTH, 4 jours)

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## Description

The course Python Programming (Python Training) teaches you how to write high quality Python codes. The training includes Python basics including variables & data types, control structures, functions & data structures. The course also covers classes, inheritance, data access, error handling, IO operations & the use of the standard library for Python.

## Tarifs

- Tarification: \$3,750/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

## Plan de cours

### The Python Environment

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What is Python and what are its uses?

Using the Python Interpreter

Invoking the Interpreter

Argument Passing

Interactive Mode

The Interpreter and Its Environment

Source Code Encoding

### Python Essentials

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Dealing with Data Types: Numbers, Strings and Lists

Implementing Conditional Logic: if and dictionaries

Implementing Repeating Logic: for and range

Using break and continue

The Meaning of pass

### Working with functions

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Defining Functions

Defining Functions: the details

Using Default Argument Values and Keyword Arguments

Arbitrary Argument Lists

Unpacking Argument Lists

Making use of Lambda Expressions

Documentation Strings

Using Function Annotations

### Working with Data Structures

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Working with Lists

Using Lists as Stacks

Using Lists as Queues

List Comprehensions

Nested List Comprehensions

The del statement

Tuples and Sequences

Sets

Dictionaries

Practical Implementations

Working with Iterators

## Working with Modules

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Understanding Modules

Executing modules as scripts

The Module Search Path

Compiled Python files

Standard Modules

The dir Function

About Packages

Importing \* From a Package

Intra-package References

Packages in Multiple Directories

## Input and Output

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Fancier Output Formatting

Old string formatting

Reading and Writing Files

Methods of File Objects

Saving structured data with json

## Errors and Exceptions

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Syntax Errors

Exceptions

Handling Exceptions

Raising Exceptions

User-defined Exceptions

Defining Clean-up Actions

Predefined Clean-up Actions

## Classes

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About Names and Objects

Python Scopes and Namespaces

Creating Classes

Class Definition Syntax

Class Objects

Instance Objects

Method Objects

Class and Instance Variables

Inheritance

Multiple Inheritance

Private Variables

## The Standard Library

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Operating System Interface

File Wildcards

Command Line Arguments

Error Output Redirection and Program Termination

String Pattern Matching

Mathematics

Internet Access

Dates and Times

Data Compression

## More on the Standard Library

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Output Formatting

Templating

Working with Binary Data Record Layouts

Multi-threading

Logging

Weak References

Tools for Working with Lists

Decimal Floating Point Arithmetic