

# Introduction to Programming with Python («PYTHON»)

Python is simple and powerful at the same time: with a concise, easy-to-understand syntax and a standard library with very extensive functionality. This course provides a practical introduction to Python.

**Duration:** 3 days

**Price:** 2'250.–

**Course documents:** Digicomp course materials and accompanying book

## Content

1. What is Python?
2. First steps
  - Arithmetic operations
  - First program
  - Saving and executing
3. Programming basics
  - Variables and operators
  - Branching
  - Loops
  - Errors and exceptions
  - Functions
4. Data types
  - Numbers
  - Strings
  - Lists
  - Dictionaries
  - Sets
5. Advanced programming
  - Output and formatting
  - Errors and exceptions
  - Functions
  - Own modules
  - Command line parameters
6. Various modules
  - Date and time
  - Multithreading
  - Regular expressions
  - Loading new modules
7. Files
  - Writing to files
  - Reading files
8. Internet
  - Reading web pages
  - Copying web pages
  - Sending data via GET and POST
9. Databases
  - Creating databases and tables
  - Read in data
  - Select data
  - Change data
  - Delete data

## 10. User interface

- Introduction to the programming of graphical user interfaces

## 11. Programming with artificial intelligence

## Key Learnings

- Knowing the terms, concepts and syntax of Python
- Creating applications with Python using the Standard Module Library

## Target audience

This course is aimed at system administrators who want to create complex batch scripts with Python and software developers who want to use Python for «Rapid Application Development».

## Requirements

Knowledge of the basics of computer science and programming is recommended, but not mandatory.

- [Basics of Programming \(«JVP»\)](#)

## Further courses

- [The Machine Learning Pipeline on AWS – Intensive Training \(«AWSA07»\)](#)

## Any questions?

We are happy to advise you on +41 44 447 21 21 or [info@digicomp.ch](mailto:info@digicomp.ch). You can find detailed information about dates on [www.digicomp.ch/courses-software-engineering/programming-languages/python/course-introduction-to-programming-with-python](https://www.digicomp.ch/courses-software-engineering/programming-languages/python/course-introduction-to-programming-with-python)