



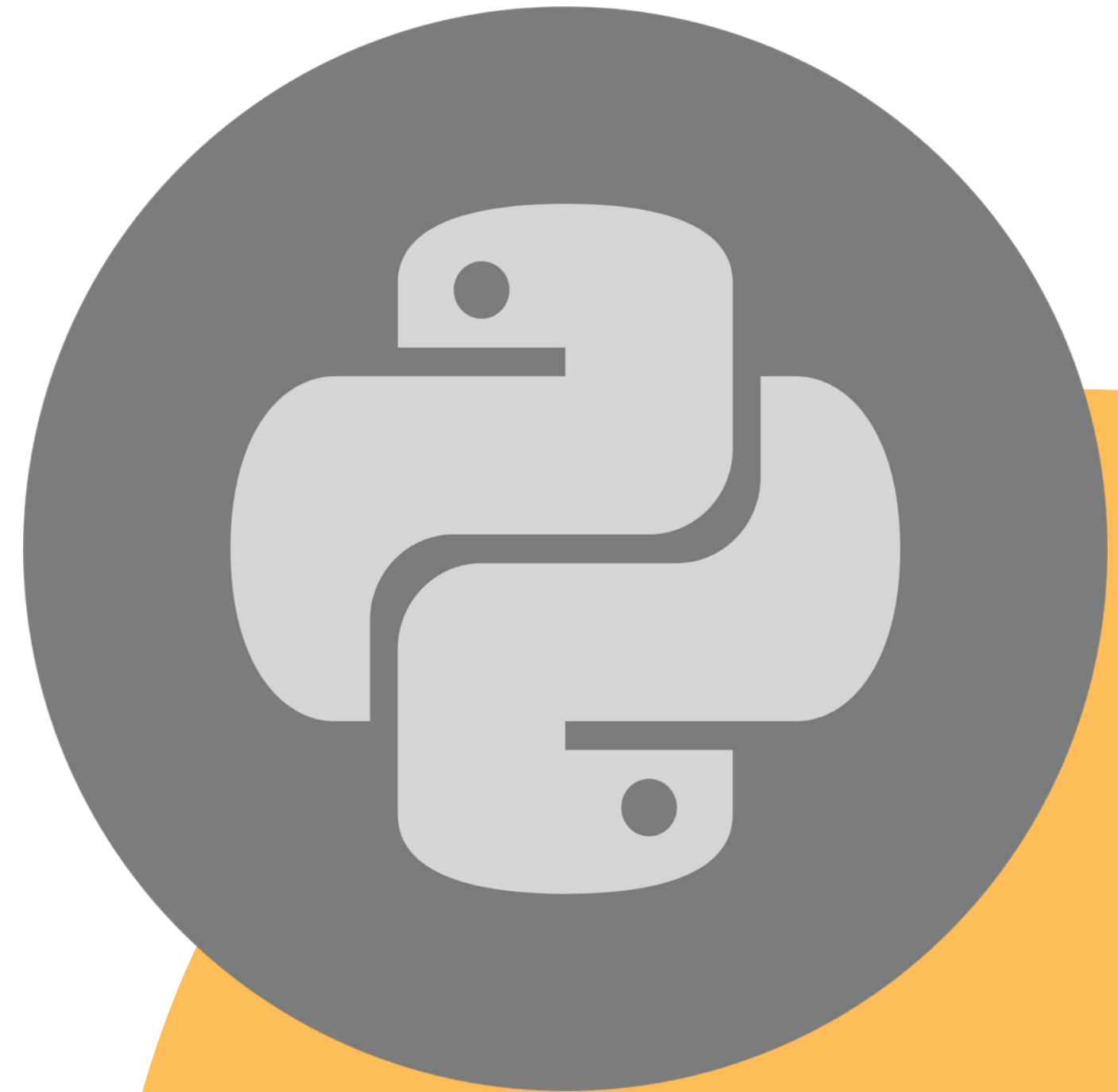
PYTHON COURSE

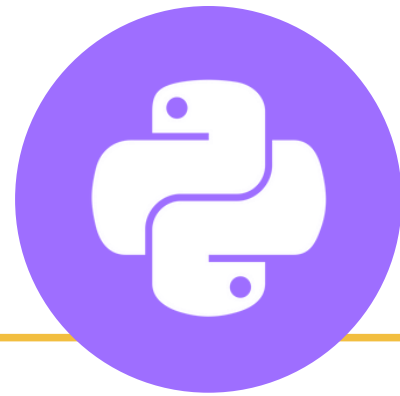


ENTRY LEVEL

Basics of programming in Python 3.10

This course will cover part of the arguments found in
PCEP™ – Certified Entry-Level Python Programmer
Certification





ABOUT PYTHON

- **INTERPRETED PROGRAMMING LANGUAGE**

Python is an **interpreted language**, which means the **code** is **directly executed by a program called Interpreter**. It differs from compiled languages which requires a compiler to translate source code into machine code to be executed.

- **DINAMICALLY TYPED LANGUAGE**

Programmers do **not have to declare variable types when writing code** because **Python determines** them **at runtime**.

PYTHON

PYTHON MAIN USE CASES



+ AUTOMATION, PYTHON SCRIPTS

Python helps automating tasks that humans normally perform. Programmers widely use Python scripts to automate many day-to-day tasks.

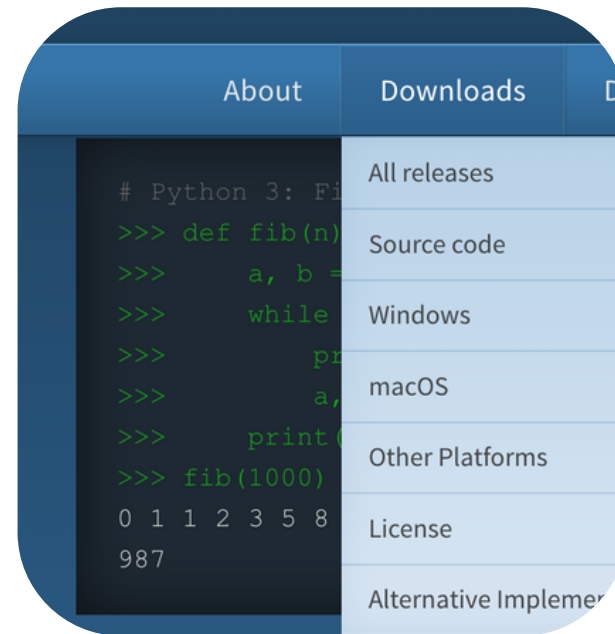
+ DATA SCIENCE, MACHINE LEARNING & DEEP LEARNING

Extracting valuable knowledge from data, and build powerful machine learning models (ML) to teach computers how to make accurate predictions based on datas. Data scientists & AI/ML Engineers use Python to perform many of their working tasks

+ SOFTWARE DEVELOPEMENT

Although it is actually not very common, some Python frameworks and Libraries are used from software developers.

PYTHON



Looking for a specific release?

Python releases by version number:

Release version	Release date
Python 3.12.1	Dec. 8, 2023
Python 3.11.7	Dec. 4, 2023
Python 3.12.0	Oct. 2, 2023
Python 3.11.6	Oct. 2, 2023
Python 3.11.5	Aug. 14, 2023

Files	
Version	Operating System
Gzipped source tarball	Source code
XZ compressed source tarball	Source code
macOS 64-bit universal2 installer	macOS
Windows embeddable package (32-bit)	Windows
Windows embeddable package (64-bit)	Windows
Windows help file	Windows
Windows installer (32-bit)	Windows
Windows installer (64-bit)	Windows

SOFTWARE

You need to download the python 3.10.11 version



DOWNLOAD PYTHON

GO ON [WWW.PYTHON.ORG](https://www.python.org)

1. First you'll need to **go on [python.org](https://www.python.org)**, then **click on “[Downloads](#)”** in the main bar on the homepage of the website.
2. **Scroll the page down** to find the “**[Looking for a specific release?](#)**” section.
3. In this section, **find the [3.10.11](#) version** and **click on “[Download](#)”**
4. Now scroll the page down to find the “**[Files](#) section”**.

Click one of those two options, based on your OS:

- **[WINDOWS INSTALLER \(64-BIT\)](#)**
- **[MACOS 64-BIT UNIVERSAL2 INSTALLER](#)**



PYTHON

INSTALL PYTHON

ON WINDOWS

- Open the **.exe** file
- **IMPORTANT:** Check the box on “add Python 3.10 to PATH”
- Click on “**Customize Installation**”
- Be sure to **mark all of the 4 boxes**, then click **next**
- **IMPORTANT:** Mark the “Add Python to the environment variables” box.
- Click on “install” and complete the installation

ON MAC

- Open the **.pkg** file and complete the installation

GET STARTED WITH PYTHON 1/2 +

PYTHON INTERPRETER

- The **python interpreter reads and executes line by line your python code**, it works pretty the same on each OS, making python a good [cross-platform language](#).
- you can open python shell by [typing python in PowerShell \(python3 on terminal for unix\)](#), you should see something like this when running.

```
> python3
[Python 3.10.11 (v3.10.11:7d4cc5aa85, Apr  4 2023, 19:05:19) [Clang 13.0.0 (clang-1300.0.29.30)]
Type "help", "copyright", "credits" or "license" for more information.
>>> _
```

[now you can start writing and executing python code!](#) type **exit()** to quit python console.

PYTHON

GET STARTED WITH PYTHON 2/2 +

PIP - PYTHON PACKAGE MANAGER

PIP is the default and most common package manager for python

it is used to download, install and manage packages in python. We'll see later what packages are and how to use them

- type **pip --version** (or pip3 --version) to **check the correct installation and version of the package manager.**

IDLE - Integrated Development and Learning Environment

A Standard IDE for python programming, optional to be downloaded



PYTHON



YOU'RE READY

To start learning how to write python code

