

Python course curriculum

Theoretical education: The theoretical classes will be delivered during the following period: 1 September 2022 – 15 March 2023. During one week, students will have 13 hours long lessons (two 4-hours long courses, and one 5-hours long course). The theoretical education will last for up to 25 weeks.

The courses will be held in the afternoon during the workdays and during the weekend since all participants are expected to be employed. The precise schedule will be created later, upon the selection of candidates.

Python course

Subphase 2.1: Introduction to the online platform that will be used for trainings.

Duration: 1 week.

Deliverable 2.1: All participants are well versed in using the platform, and provided with educational materials.

Subphase 2.2: Introduction to HTML5 and CSS3.

Duration: 2 weeks.

Deliverable 2.2: All participants will be able to make and style web pages using HTML5 and CSS3.

Subphase 2.3: Introduction to JavaScript

Duration: 3 weeks.

Deliverable 2.3: All participants will be able to add dynamic elements to web pages using JavaScript.

Subphase 2.4: Introduction to relational databases and MySQL

Duration: 3 weeks.

Deliverable 2.4: All participants will be able to model, construct and manipulate databases with CRUD operations.

Subphase 2.5: Python basics

Duration: 1 week.

Deliverable 2.5: All participants will be able to code basic concepts, algorithms and data structures in Python.

Subphase 2.6: Working with functions, classes, packages and using libraries in Python

Duration: 2 weeks.

Deliverable 2.6: All participants will be able to use functions and to solve challenging problems. Also, NumPy as a fundamental Python package will be introduced.

Subphase 2.7: Introduction to relational MySQL database

Duration: 2 weeks.

Deliverable 2.7: All participants will be able to model, construct and manipulate databases with CRUD operations.

Subphase 2.8: Django web framework

Duration: 4 weeks.

Deliverable 2.8: All participants will be able to develop simple web applications in Django.

Subphase 2.9: Django – advanced techniques

Duration: 2 weeks.

Deliverable 2.9: All participants will be able to make web applications with templates.

Subphase 2.10: Python for data scientists

Duration: 2 weeks.

Deliverable 2.10: All participants will be well versed in OOP concepts and how they are implemented in PHP.

Subphase 2.11: Testing Django web applications

Duration: 1 week.

Deliverable 2.11: All participants will learn how to develop a test plan and test cases.

Deliverable 2.12 (Date: 15. March 2023): Results on the final test covering all topics included in the course.

Soft skills training: After the completion of theoretical classes, participants will be attending a workshop (40 hours of soft skills training). Soft skills training will be delivered during the following period: 15 March 2023 – 1 May 2023. The workshop will be held online.

Practical education: Interested participants will be provided with a practical education in duration of 120 hours, during the following period: 1 May 2023 – 1 June 2023. The practise will be organized online in collaboration with partners from industry.