Python

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Spring Semester 2024

Part I. — Getting Started (intro, IDEs, running programs)

Part II. — *Types and Operations* (objects, types, dynamic typing)

Part III. — Statements and Syntax (statements, assignments, expressions, comprehensions)

Part IV. — Functions and Generators (basics, scopes, arguments, advanced topics)

Part V. — *Modules and Packages* (basics and advanced topics)

Part VI. — Classes and OOP (basics, details, operator overloading, design, advanced topics)

Part VII. — Exceptions and Tools (basics, details, exception objects, design)

Part VIII. — Advanced Topics (Unicode and byte strings, managed attributes)

Part IX. — *Advanced Topics* (decorators)

Part X. — Advanced Topics (metaclasses)

Part XI. — Design patterns

Part XII. — *A topic proposed by the audience* (e.g. concurrent programming, GUI programming)

Days and time: Fridays at 4 pm CET [12 x (3-hour lectures)]

Start: March 1, 2024

Place: Sala D

Book: Big part of the lecture will be based on the book "Learning Python" 5ed by Mark Lutz **Software:** Jupyter-notebook, CPython

Language: English

Registration for Python course: By email to <u>panos@ifpan.edu.pl</u>, please, provide your name, surname, year of studies if relevant, and name of your institution upon registration)