Object Oriented Programming with Python

Abstract:

Introduction in Object Oriented Programming with Python. The course starts from scratch, showing the underlying ideas and implementations. It also introduces illuminates the special Python philosophy of Python concerning OOP. The course ends with advanced OOP Python concepts "Class decoration" and "Metaclassing".

Agenda:

1.1.   Introduction

1.2.   Class and Instance Attributes

1.3.   Data Abstraction using getters and setters

1.4.   Properties

1.5.   Magic Methods and Operator Overloading

1.6.   Inheritance

1.7.   Multiple Inheritance

1.8.   Class Decoration

1.9.   Metaclasses

Participation requirements:

Intermediate programming knowledge in Python. Participation in the course "Basic Python" or familiarity with the topics of this course. Participation in the course "Python Advanced" is not crucial but helpful.

This course counts for 1.0 credit point in category B and C of the study programme of the PIER Helmholtz Graduate School.

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