PhD Physics course at Bari University (Cycle)

Title	Fundamentals of Python Programming
Proponent	Dott. Domenico Diacono
# CFU (1 CFU = 8 hours)	2
Schedule	
Brief Summary of the course	The course doesn't require a previous programming knowledge. It contains an introduction to Python language fundamentals, and to the most used Python structures for procedural and object oriented programming.
Programme	-The Python interpreter -Python data: lists and array -Control statements: if, for, while, for/else -Definition of function and variables -List slicing, variable scope -Python scripting -Error control with Try-Except -Modules and namespaces -How to interact with the operative system files: how to read, modify and write data -List comprehension -Dictionaries -Classes and Python duck typing -How to extend Python with libraries: an example with bash -Multithreading programming: threads, locks, semaphores -Network programming: network sockets, client-server architectures -Exercises
Recommended texts	• **Head First Python**, by Paul Barry, O'Reilly Media • **Core PYTHON Applications Programming Third Edition**, by Wesley J. Chun , Prentice Hall • **Python Scripting for Computational Science, by** Hans Petter Langtangen, Springer • **Imparare Python**, Mark Lutz, O'Reilly
Assessment methods	Multiple choice test, class interaction