

Tárgytematika / Course Description Basic Programming

GKNB_MSTA055

Tárgyfelelős neve /

Teacher's name: Pusztai Pál

Félév / Semester: 2024/25/1

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 1/1/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The goal of the course is to introduce a modern, dynamically typed programming language (Python), and to teach the programming approach and techniques needed to use the language efficiently.

TANTÁRGY TARTALMA / DESCRIPTION

- Creating own functions. Defining and calling a function. Docstring. Positional and keyword arguments. Lambda expressions.
- Modules and packages. Elements of the standard library: datetime, time, random, collections, copy, gzip, pickle.
- Exception handling. Debugging.
- File handling: writing and reading textfiles and binary files.
- The numpy modul: arrays and subarrays, functions, array operations, broadcasting.
- Data analysis with pandas modul: DataFrame and Series objects, select and groupby.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

The course ends with a test, where the students solve simple programming problems in Python. The available time is 90 minutes. Scoring: 0-7:1 (fail), 8-10:2 (pass), 11-13:3 (satisfactory), 14-16:4 (good), 17-20:5 (excellent).

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

- Mark Pilgrim: Dive into Python 3 (<http://www.diveintopython3.net/>).
- Zed A .Shaw: Learn Python 3 the Hard Way, Addison-Wesley, ISBN: 9780321884916.

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL

