GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2017-2018

Processing Language with Python (A704033)

Course size *(nominal values; actual values may depend on programme)*

Credits 5	**Study time** 150 h	**Contact hrs**	45 h

Course offerings and teaching methods in academic year 2017-2018

A704033A (semester 1)	seminar: practical PC room classes	22.5 h
	self-reliant study activities	22.5 h

Lecturers in academic year 2017-2018

Patrick Goethals	LW22	lecturer-in-charge
Bart Desmet	LW22	co-lecturer
Gilles Jacobs	LW22	co-lecturer

Offered in the following programmes in 2017-2018	crdts	offering
Postgraduate Certificate Computer-Assisted Language Mediation	5	A

Teaching languages

English

Keywords

Programming, Python, automatization, text analysis

Position of the course

This course offers an introduction to programming with Python. It does not require prior knowledge about programming. The focus of the course is on automatic text processing.
Programming skills have a number of benefits:
- An understanding of the functioning and possibilities of computer programs is becoming ever more important in a society where technology is omnipresent
- Programming trains analytical thinking and problem-solving skills
- Repetitive or data-intensive tasks can be automated with simple programs

Contents

The course deals with the following topics:
- basic concepts of programming: variables, operators, assignment, data types
- control structures: conditions, loops, recursion
- using and writing functions
- working with files and directories
- using external libraries, especially those developed for text analysis
- anatomy of a computer program
- calling scripts in a command line environment
- documentation and error handling

Initial competences

Basic computer skills

Final competences

1 Having general knowledge about how computer programs work
2 Having the practical knowledge and skills to develop simple computer programs
3 Capacity to break down an assignment into smaller subtasks
4 Ability to find and correct bugs in code

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Self-reliant study activities, seminar: practical PC room classes

Learning materials and price

Handouts and materials for download on Minerva
(Students should have a laptop)

References

- Python Software Foundation. *Official Python documentation*. http://www.python.org/doc/
- Allen B. Downey. *Think Python. How to Think Like a Computer Scientist?* http://greenteapress.com/thinkpython/thinkpython.html
- Steven Bird, Ewan Klein, & Edward Loper. *Natural Language Processing with Python. Analyzing Text with the Natural Language Toolkit*. http://www.nltk.org/book

Course content-related study coaching

Discussion forum on Minerva
Possibility to contact lecturers via e-mail

Evaluation methods

continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Examination methods in case of periodic evaluation during the second examination period

Examination methods in case of permanent evaluation

Assignment

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

Extra information on the examination methods

The assignment consists of various programming exercises for automating concrete tasks.
Second exam opportunity:
Assignment: same assignment; students submit a new, improved version.

Calculation of the examination mark

Assignment (100%)

Facilities for Working Students

Can be requested from the learning track counsellor