

## Introduction to Processing Language with Python (A005868)

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

**Credits 5.0** **Study time 150 h**

**Course offerings in academic year 2024-2025**

A (semester 1)	English	Gent
B (semester 1)	Dutch	Gent

**Lecturers in academic year 2024-2025**

De Langhe, Loic	LW22	lecturer-in-charge
Tezcan, Arda	LW22	co-lecturer

**Offered in the following programmes in 2024-2025**

	<b>crdts</b>	<b>offering</b>
<a href="#">Bachelor of Arts in Applied Language Studies: a combination of at least two languages(main subject Dutch, English, Language Technology)</a>	5	B
<a href="#">Bachelor of Arts in Applied Language Studies: a combination of at least two languages(main subject Dutch, French, Language Technology)</a>	5	B
<a href="#">Bachelor of Arts in Applied Language Studies: a combination of at least two languages(main subject Dutch, German, Language Technology)</a>	5	B
<a href="#">Master of Arts in Advanced Studies in Linguistics (main subject Natural Language Processing: Theory and Practice)</a>	6	A
<a href="#">Postgraduate Certificate Computer-Assisted Language Mediation</a>	5	A
<a href="#">Preparatory Course Master of Arts in Multilingual Communication: a combination of at least two languages</a>	5	B
<a href="#">Preparatory Course Master of Arts in Translation: a combination of at least two languages</a>	5	B

**Teaching languages**

English, Dutch

**Keywords**

Programming, Python, automatization, basic 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
- 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**

Seminar, Independent work

#### **Study material**

Type: Software

Name: Google Colab Notebooks

Indicative price: Free or paid by faculty

Optional: no

#### **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 Ufora.

Possibility to contact lecturers via e-mail

#### **Assessment moments**

end-of-term and continuous assessment

#### **Examination methods in case of periodic assessment during the first examination period**

Skills test, Assignment

#### **Examination methods in case of periodic assessment during the second examination period**

Skills test, Assignment

#### **Examination methods in case of permanent assessment**

Skills test, Assignment

#### **Possibilities of retake in case of permanent assessment**

examination during the second examination period is possible

#### **Extra information on the examination methods**

After 6 weeks a Skills Test will be organized, which counts for the 20% of the final score. This skills test will require hands-on-coding and will be completed in the classroom.

At the end of the course there will be a coding exam (assignment), which counts for the 80% of the final score. This exam will require hands-on-coding and will be completed in the classroom. The score of the skills test will be transferred to the second examination period, which will only consist of the coding exam.

During the semester there will be practical coding exercises, for which keys will be provided after each lesson. These exercises will not be graded but the students are encouraged to solve them.

#### **Calculation of the examination mark**

20% Skills Test (after 6 weeks)

80% Final Skills Test (during the examination period)

#### **Facilities for Working Students**

Can be requested from the learning track counsellor