

## Digital Humanities (A703307)

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

**Credits 3.0**

**Study time 90 h**

### Course offerings and teaching methods in academic year 2023-2024

A (semester 2)

Dutch

Gent

lecture

independent work

seminar

### Lecturers in academic year 2023-2024

Singh, Pranaydeep

LW22

staff member

Lefever, Els

LW22

lecturer-in-charge

Hoste, Veronique

LW22

co-lecturer

### Offered in the following programmes in 2023-2024

Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, English, French)

3

A

Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, English, French)

3

A

Master of Arts in Translation: a combination of at least two languages(main subject Dutch, English, French)

3

A

Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, English, German)

3

A

Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, English, German)

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A

Master of Arts in Translation: a combination of at least two languages(main subject Dutch, English, German)

3

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Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, English, Italian)

3

A

Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, English, Italian)

3

A

Master of Arts in Translation: a combination of at least two languages(main subject Dutch, English, Italian)

3

A

Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, English, Russian)

3

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Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, English, Russian)

3

A

Master of Arts in Translation: a combination of at least two languages(main subject Dutch, English, Russian)

3

A

Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, English, Spanish)

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Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, English, Spanish)

3

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Master of Arts in Translation: a combination of at least two languages(main subject Dutch, English, Spanish)

3

A

Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, English, Turkish)

3

A

Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, English, Turkish)

3

A

Master of Arts in Translation: a combination of at least two languages(main subject Dutch, English, Turkish)

3

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Master of Arts in Interpreting: a combination of at least two languages(main subject Dutch, French, German)

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Master of Arts in Multilingual Communication: a combination of at least two languages(main subject Dutch, French, German)

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### Teaching languages

Dutch

### Keywords

Language technology, Digital Humanities

### Position of the course

The goals of the course "Digital Humanities" (K4DH) are the following:

- Introduce students to the broad domain of digital humanities
- Introduce students to the programming language Python
- Introduce students to machine learning (systems)
- Familiarise students with building a language technology application (i.e. lexicon-based and machine learning system for sentiment analysis)

### Contents

The content of the course "Digital Humanities" (K4DH) is thematically ordered and consists of the following modules:

- a theoretical introduction to allow the student to gain insight into language technology systems (such as sentiment detection, machine translation, retrieval systems, etc.) and their application in the domain of human sciences.
- a theoretical introduction to machine learning systems and hands-on exercises with the toolkit Weka.
- learn how to compile a corpus and how to annotate the corpus by means of dedicated annotation software
- an introduction to Python in order to learn how to program basic scripts that allow to extract specific information from corpora. This knowledge is then applied to build a lexicon-based system for sentiment analysis.

#### **Initial competences**

- the general competences of an academic bachelor
- general knowledge about language and translation technology

#### **Final competences**

- 1 Having advanced knowledge of the language technology process and, based on that knowledge, critically assessing language technology tools [MV.1.4 assessed]
- 2 Critically applying theoretical models and methods of analysis to complex problems. [MV.2.3 assessed]
- 3 Communicating on their own research with both a broad and specialised audience, both orally and in writing. [MV.2.3 assessed]
- 4 Underpinning their views in a scientifically justified manner and sharing these with both lay people and colleagues in a coherent and clear manner. [MV.3.2 assessed]
- 5 Judging and acting with the necessary dose of critical self-reflection in unpredictable, complex and specialist contexts. [MV.3.3 assessed]
- 6 Identifying deontological and ethical aspects and acting accordingly. [MV.5.1 assessed]

#### **Conditions for credit contract**

Access to this course unit via a credit contract is determined after successful competences assessment

#### **Conditions for exam contract**

This course unit cannot be taken via an exam contract

#### **Teaching methods**

Seminar, Lecture, Independent work

#### **Extra information on the teaching methods**

During the lectures, the theoretical background is discussed which serves as the basis for the practical PC room exercises.

In the practical PC room exercises, the students learn to program in Python, experiment with machine learning techniques, etc. The students also get extra exercises to further practice their programming and experimental skills at home.

#### **Learning materials and price**

Learning platform:

- course material

#### **References**

Steven Bird, Ewan Klein & Edward Loper. 2009. "Natural Language Processing with Python – Analyzing Text with the Natural Language Toolkit", O'Reilly Media.

Rosenthal, Sara, Ritter, Alan, Nakov, Preslav & Stoyanov, Veselin. 2014. "SemEval-2014 Task 9: Sentiment Analysis in Twitter", Proceedings of the 8th International Workshop on Semantic Evaluation (SemEval 2014), 73-80, Dublin, Ireland, ACL.

#### **Course content-related study coaching**

The members of staff have a weekly consultation hour.

#### **Assessment moments**

continuous assessment

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

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

**Examination methods in case of permanent assessment**

Assignment

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

examination during the second examination period is possible

**Extra information on the examination methods**

Assignment (100%)

At the end of the course, the students get an assignment on one of the themes covered in the lessons and write a paper on the topic.

**Calculation of the examination mark**

See heading 'Extra information on the examination methods'

**Facilities for Working Students**

Can be requested from the course responsible.

**Addendum**

K4TT