

# Course Specifications

Valid as from the academic year 2024-2025

# Machine Translation and Post-editing (A704028)

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

Credits 5.0 Study time 150 h

# Course offerings and teaching methods in academic year 2024-2025

A (semester 1) English Gent practical

lecture

LW22

independent work

lecturer-in-charge

# Lecturers in academic year 2024-2025

Macken, Lieve

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Daems, Joke	LW22	co-lecturer	
Offered in the following programmes in 2024-2025		crdts	offering
Master of Arts in Translation: a combination of at least two language Dutch, English)	s(main subject	5	Α
Master of Arts in Translation: a combination of at least two language Dutch, English, French)	s(main subject	5	Α
Master of Arts in Translation: a combination of at least two language	s(main subject	5	Α
Dutch, English, German)  Master of Arts in Translation: a combination of at least two language.	s(main subject	5	Α
Dutch, English, Italian) Master of Arts in Translation: a combination of at least two language.	s(main subject	5	Α
Dutch, English, Russian) Master of Arts in Translation: a combination of at least two language	s(main subject	5	А
Dutch, English, Spanish) Master of Arts in Translation: a combination of at least two language	s(main subject	5	А
Dutch, French) Master of Arts in Translation: a combination of at least two language	s(main subject	5	А
Dutch, French, German)  Master of Arts in Translation: a combination of at least two language	s(main subject	5	Α
Dutch, French, Italian)  Master of Arts in Translation: a combination of at least two language.	s(main subject	5	А
Dutch, French, Russian)  Master of Arts in Translation: a combination of at least two language.	s(main subject	5	Α
Dutch, French, Spanish)  Master of Arts in Translation: a combination of at least two language		5	А
Dutch, German)  Master of Arts in Translation: a combination of at least two language		5	А
Dutch, German, Italian)  Master of Arts in Translation: a combination of at least two language		5	A
Dutch, German, Russian)			
Master of Arts in Translation: a combination of at least two language Dutch, German, Spanish)		5	Α .
Master of Arts in Translation: a combination of at least two language Dutch, Italian)		5	A
Master of Arts in Translation: a combination of at least two language Dutch, Russian)	s(main subject	5	Α
Master of Arts in Translation: a combination of at least two language. Dutch, Spanish)	s(main subject	5	Α
Master of Arts in Translation: a combination of at least two language Dutch, Turkish)	s(main subject	5	Α
Master of Arts in Technology for Translation and Interpreting  Postgraduate Certificate Computer-Assisted Language Mediation		5 5	A A
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#### Teaching languages

English

#### Keywords

Machine translation, post-editing

#### Position of the course

Machine Translation (MT) is the translation of text by a computer. To produce high-quality translations, humans still need to intervene in the process either by making the input more suitable for MT (pre-editing) or changing the output (post-editing).

#### Contents

The course deals with the following topics:

- · Challenges for MT;
- Architecture of MT systems (rule-based MT, statistical MT and neural MT systems; interactive and adaptive systems; large language models (e.g. ChatGPT));
- Evaluation of MT output (automatic vs. manual evaluation methods);
- Post-editing and post-editing tools;
- Integration of MT in the translation workflow;
- · Creation and evaluation of a customized MT engine.

#### Initial competences

The student is proficient in English and has good knowledge of at least one of the following languages: Dutch, French, Spanish, German, Russian or Turkish.

# Final competences

- 1 The student has advanced knowledge of different machine translation architectures and can, based on that knowledge, critically assess different machine translation systems;
- 2 The student has advanced knowledge of the evaluation methods that are used in the field of MT;
- 3 The student has advanced knowledge of the post-editing process and the typical MT errors:
- 4 The student has knowledge of how MT is integrated in translation workflows.
- 5 The student can critically read and assess scientific work in the field of machine translation.

### 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

Lecture, Practical, Independent work

#### Extra information on the teaching methods

Lectures and hands-on seminars Guided self-study/team work at home.

#### Study material

Type: Slides

Name: Slides

Indicative price: Free or paid by faculty

Optional: no Language : English

# Type: Software

Name: Online MT engines, MutNMT, MATEO, adaptive MT systems (e.g. ModernMT or Lilt), generative Al-system (e.g.

ChatGPT)

Indicative price: Free or paid by faculty

Optional: no

Online Available: Yes

#### References

Koehn, P. Neural Machine Translation. Cambridge University Press, 2020

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 O'Brien, S., Balling L., Carl, M., Simard, M., Specia, L. Post-editing of Machine Translation: Processes and Applications. Cambridge Scholar Publishing, 2014

# Course content-related study coaching

Interactive support via UFORA and during the lectures. Individual and collective feedback during lectures, or via UFORA.

# **Assessment moments**

end-of-term and 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

Written assessment with open-ended questions

### 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

#### First session:

- Skills test (30%)
- Assignment (70%)

The skills test consists of several practical assignments that are completed during the classes. The assignment consists of several more elaborate tasks.

#### Second session:

· Written exam (100%)

#### Calculation of the examination mark

First session: skills test 30%; assignment 70%

Second session: exam 100%

In order to pass, students must participate in at least 80% of all evaluations and obligatory activities such as guest lectures. If a student is absent due to a legitimate reason, an individual alternative assignment can be given.

# **Facilities for Working Students**

Class attendance is strongly recommended. Limited possibility of feedback via e-mail, restricted to answering specific questions.

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