

## 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 2023-2024**

A (semester 1)

English

Gent

lecture

practical

independent work

**Lecturers in academic year 2023-2024**

Macken, Lieve

LW22

lecturer-in-charge

Daems, Joke

LW22

co-lecturer

Tezcan, Arda

LW22

co-lecturer

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

Master of Arts in Technology for Translation and Interpreting

**crdts**

5

**offering**

A

Postgraduate Certificate Computer-Assisted Language Mediation

5

A

**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.

**Learning materials and price**

Handouts and materials on the electronic learning platform Ufora.

Geraamde totaalprijs: 0 EUR

**References**

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