Department of Linguistics

Education plan

for

Masterprogram i AI och språk **120.0 Higher Education Credits**
Master's Programme in AI and Language **120.0 ECTS credits**

Programme code:	HSAIO
Valid from:	Autumn 2024
Date of approval:	2023-09-12
Changed:	2023-11-21
Department:	Department of Linguistics

Decision

Finalized by: Denna utbildningsplan är fastställd av Humanistiska fakultetsnämnden, 2023-09-12

Prerequisites and special admittance requirements

A degree of 180 ECTS credits, including a degree project, in linguistics, computational linguistics, language technology, computer science, computer and systems sciences, cognitive science, engineering physics, engineering mathematics, or equivalent. English 6 or equivalent.

Programme structure

The Master's programme in AI and Language provides in-depth knowledge in language technology and speech technology, and gives students the foundations in linguistics, phonetics, statistical methods and programming required for language technology applications. Students develop competence in automatic linguistic analysis, generation and recognition, as well as in various applications in the field such as digital humanities, multilingual systems, computer-assisted language learning and speech technology. The programme provides the students opportunities to enhance their expertise in cognitive science and machine learning, in collaboration with other departments and institutions of higher education.

Emphasis is placed on students developing their scientific approach and their ability to conduct independent analysis while practicing effective communication of their work, both in writing and orally. Practical training of these skills includes small projects and seminar presentations. The programme equips students with thorough knowledge and skills in AI, based on linguistic data, and programme graduates are eligible to apply for PhD studies in linguistics. It can also serve as further specialisation building on previous studies in a discipline where AI and language are relevant, or as the basis for a future career related to AI and language.

The study route comprises four semesters of full-time study (120 ECTS credits) and consists of mandatory courses (90 ECTS credits), including a master's thesis (30 ECTS credits), and elective and/or optional courses (30 ECTS credits). Each semester is typically made up of four course units of 7.5 ECTS credits, excepting a project course of 15 ECTS credits and the 30-credit master's thesis.

The language of instruction is English.

Courses may be offered on campus or entirely or partially online, as specified for each course instance.

Goals

Degree of Master of Arts (120 ECTS credits)

Knowledge and Understanding

Having completed the programme, students will be able to

• demonstrate knowledge and understanding in the main field of study, including both wide-ranging knowledge of the field and specialised knowledge in particular areas of the field, as well as in-depth familiarity with current research and development work,

• demonstrate extensive knowledge of methodology within the main field of study.

Skills and Ability

Having completed the programme, students will be able to

• demonstrate the ability to critically and systematically integrate knowledge, and to analyse, assess and manage complex phenomena, research questions and situations, even with limited information,

• demonstrate the ability to critically, independently and creatively identify and formulate research questions, to plan and implement qualified tasks within a given timeframe using appropriate methods, thereby contributing to the development of knowledge, and to evaluate this work,

• demonstrate the ability to clearly present and discuss the conclusions and the knowledge and arguments on which they are based, both in speech and in writing, in dialogue with different audiences, nationally as well as internationally,

• demonstrate the skills necessary to participate in research and development work or to work independently in other qualified capacities.

Judgement and Approach

Having completed the programme, students will be able to

• demonstrate the ability to make informed assessments within the main field of study as concerns scientific, social and ethical considerations, and to demonstrate awareness of ethical aspects of research and development work,

• demonstrate insight into the potential and limitations of research, its role in society and the responsibility of the individual for its use,

• demonstrate the ability to recognise their need for further knowledge and take responsibility for their own knowledge development.

Courses

Study Route and Mandatory Courses

Semester 1

The Structure of Language, 7.5 ECTS credits (main field: Language Informatics)

Introduction to Programming, 7.5 ECTS credits (main field: Language Informatics)

Analysis and Processing of Speech, 7.5 ECTS credits (main field: Language Informatics)

Statistics and Machine Learning, 7.5 ECTS credits (main field: Language Informatics)

Semester 2

Applied Programming, 7.5 ECTS credits (main field: Language Informatics)

Natural Language Processing, 7.5 ECTS credits (main field: Language Informatics)

Elective and/or optional courses amounting to 15 ECTS credits

Semester 3

Project Course in AI and Language, 15 ECTS credits (main field: Language Informatics)

Elective and/or optional courses amounting to 15 ECTS credits

Semester 4

Master's Thesis in AI and Language, 30 ECTS credits (main field: Language Informatics)

Elective and optional courses are to be selected in consultation with the programme coordinator.

A maximum of 30 ECTS credits of first-cycle courses may be included in a Degree of Master of Arts (120 ECTS credits).

For detailed entry requirements pertaining to specific courses within the Master's programme, please refer to the relevant course syllabus.

Degree

The programme leads to a Degree of Master of Arts (120 ECTS credits) in the main field of Language Informatics.

Misc

Transitional regulations:

When the present programme education plan is withdrawn, students have a right to complete their education in accordance with the current plan during a transitional period corresponding to the two-year duration of the programme plus another two years. During this period, the limitations stated in the syllabus of each individual course within the programme apply primarily; secondarily, equivalent courses will be offered.