LT2216   Dialogue systems, 7.5 credits
Dialogsystem, 7,5 högskolepoäng
Second Cycle

Confirmation

This course syllabus was confirmed by Department of Philosophy, Linguistics and Theory of Science on 2018-05-29 and was last revised on 2023-05-29 to be valid from 2023-08-28, autumn semester of 2023.

Field of education: Science 100%
Department: Department of Philosophy, Linguistics and Theory of Science

Position in the educational system

The course can be taken as a free-standing course.

The course can be part of the following programmes: 1) Applied Data Science Master's Programme (N2ADS), 2) Master in Language Technology (H2LTG) and 3) Master in Language Technology (One year or Two years) (H2MLT)

Main field of studies	*Specialization*
Language Technology	A1F, Second cycle, has second-cycle course/s as entry requirements

Entry requirements

Admission to the course requires either successful completion of both of the following courses:

- LT2001 Introduction to programming, 7.5 credits
- LT2002 Introduction to formal linguistics, 7.5 credits

or equivalent language technology skills.

English 6 or equivalent is also required.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding
- account for the most common strategies for dialogue management,
- account for the functionality and limitations of components such as speech synthesis, speech recognition, and natural language understanding,
- account for the most important methodological principles for development and evaluation of dialogue systems,
- account for theories of human language use in dialogue,

Competence and skills
- design, implement and test a dialogue system application for a specific domain,
- adapt and use speech recognition and natural language components in a dialogue systems application
- design and implement a dialogue management mechanism for a specific domain
- design prompts for a text to speech component,
- perform work according to a predetermined schedule,

Judgement and approach
- make informed judgements of the theories and technologies that underlie the kinds of speech synthesis, speech recognition, natural language understanding, and dialogue management components that are discussed in the course - their merits and shortcomings.

Course content

The lectures in the course focus on theories of dialogue management. These are connected to theories of human language use in dialogue, including concepts such as dialogue structure, turn-taking and feedback. Part of the course is also spent on methodologies for design and evaluation of dialogue systems.

The practical part of the course focuses on how to put together components into a functioning dialogue system, and how to build a dialogue system application by adapting such a system to a particular domain.

Other components of dialogue systems such as speech recognition, natural language understanding, and speech synthesis are also covered.

Form of teaching

A part of the course is given in the form of lectures, but it is mainly lab- and project oriented.

Language of instruction: English

Assessment

The course is assessed through laboratory exercises, project assignments, written and/or oral exams.

The grading teacher may request completion of examined student achievements.

Students are expected to hand in requested materials on time.

A student who has taken two exams in a course or part of a course without obtaining a pass grade is entitled to the nomination of another examiner. The student needs to contact the department for a new examiner, preferably in writing, and this should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special educational support, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, the examiner may decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years, after the course has ceased/been changed. The same applies to placements and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

Course evaluation

Students participating in, or having completed the course, are given the chance to anonymously submit their opinions and suggestions for the course in a course evaluation. A short version of the course evaluation, together with the reflections of the course coordinator, is published and made available to the students within a reasonable time after the course has finished. The next time the course will be given, a short version of the course evaluation will be presented together with any implemented measures.

Additional information

The course may not be included in a degree together with LT2816.

The course requires access to a computer (or similar) with internet access.