UNIVERSITY OF GOTHENBURG

DEPARTMENT OF PHILOSOPHY, LINGUISTICS AND THEORY OF SCIENCE

LT2319 Dialogue Systems 2, 7.5 credits

Dialogsystem 2, 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 2023-08-25, 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 given as a freestanding 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

For admission to the course a passed result in each of the following four courses:

- LT2001 Introduction to programming 7.5 credits
- LT2002 Introduction to formal linguistics 7.5 credits
- LT2003 Natural language processing, 15 credits (or LT2123 Basic skills for language technology, 7.5 credits together with LT2124 Themes in NLP and language technology, 7.5 credits)
- LT2216 Dialogue system 7.5 credits

or the equivalent is required.

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 how linguistic theory in pragmatics is relevant to and can be implemented in dialogue systems,
- explain the basic functionality of the components of a typical (multimodal) dialogue system and how these relate to one another in various architectures,
- account for methods for collection and processing of data relevant to the development of dialogue systems,
- account for basic principles of some advanced frameworks for dialogue management that go beyond simple state-based or form-based dialogue management,
- account for various types of multimodality in dialogue systems,
- account for methods for analysis and evaluation of dialogue systems both "glass-box" and "black-box" methods,

Competence and skills

- analyse and evaluate an existing dialogue system based on knowledge about function and design,
- implement a dialogue system application in one of the advanced dialogue management frameworks discussed in the course,
- within the frame of a project, and using sound methodology for design, implementation and evaluation, in groups develop a larger (possibly multimodal) dialogue system application,
- perform work according to a predetermined schedule,

Judgement and approach

- problematise and scientifically evaluate design choices in dialogue systems development, such as
- problematise and scientifically evaluate design choices in dialogue systems development, such as concerning error handling, dialogue management and multimodality.

Course content

The course gives in-depth knowledge about theories and methods for the design, implementation and evaluation of dialogue systems, focusing particularly on:

- Semantics and pragmatics for dialogue systems
- Data collection and analysis
- Advanced dialogue management
- Multimodality
- Evaluation of dialogue systems
- Advanced implementation techniques

Form of teaching

Parts of the course are in the form of lectures, but the course is largely 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 of 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 measures implemented..

Additional information

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