



DEPARTMENT OF PHILOSOPHY, LINGUISTICS AND THEORY OF SCIENCE

LT2308 Embodied and situated language processing, 7.5 higher education credits

Situerad språkbehandling, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Department of Philosophy, Linguistics and Theory of Science on 2014-08-22 and was last revised on 2017-06-01 to be valid from 2017-08-28, autumn semester of 2017.

Field of education: Science 100%

Department: Department of Philosophy, Linguistics and Theory of Science

Position in the educational system

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

Main field of studies

Language Technology

Specialization

A1F, Second cycle, has second-cycle course/s as entry requirements

Entry requirements

Passed courses

- LT2306 Machine learning, 7.5 hecr,
- LT2203 Computational semantics, 7.5 hecr, and
- LT2201 Speech Technology, 7.5 hecr

or equivalent language technology skills and knowledge.

Learning outcomes

Knowledge and understanding

- Learn how linguistic meaning interacts with the world around us and how it is coordinated between and learned by agents.
- Learn about the basic concepts involved in situated language processing: perceptual judgements, grounding, situated dialogue, perceptual representation of space, linguistic representation of space, embodiment
- Learn about the techniques of situated language interpretation and generation
- Become familiar with the most widely known implementations of embodied situated dialogue systems.
- Learn about the resources available for situated language processing.

Skills and abilities

- Acquire theoretical pre-requisite knowledge to be able to build parts of situated dialogue agents.

Judgement and approach

- Make an informed choice of different techniques for situated natural language interpretation and generation.

Course content

The course gives a survey of theory and practical computational implementations of how natural language interacts with the physical world. We will look at topics such as semantic theories of human language, action and perception, situated dialogue, situated language acquisition, grounding of language in action and perception, spatial cognition, generation and interpretation of scene descriptions from images and videos, integrated robotic dialogue systems and others.

Form of teaching

The course will be organised as a series of lectures where some lectures will be supplemented by seminar-style student presentations of a pre-selected papers/book chapters.

Language of instruction: English

Assessment

The examination consists of a combination of active participation at seminars, seminar presentation, and either a course paper or a well documented implementation.

A student who has failed an examination twice has the right to change examiners if it is feasible. A written application should be sent to the board of the department.

Grades

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

Course evaluation