



# DT2151 Project in Conversational Systems 7.5 credits

Projekt i konverserande system

This is a translation of the Swedish, legally binding, course syllabus.

## Establishment

The official course syllabus is valid from the autumn semester 2021 in accordance with head of school decision: J-2021-0519. Decision date: 15/04/2021

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

Second cycle

## Main field of study

Computer Science and Engineering

## Specific prerequisites

Completed a course equivalent to DD2421 Machine learning or DT2112 Speech technology or DT2140 Multi-modal interactions and interfaces.

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After passing the course, the student shall be able to

- evaluate strengths and weaknesses in conversational systems by referring to theories of linguistic interaction
- implement a conversational system using an existing framework
- search for, summarise and report on scientific and technical literature in the area
- plan and carry out a project in the domain of conversational systems.

## Course contents

Conversational systems, such as social robots or voice assistants, interact with people through linguistic interaction (speech, text, body language etc) The course gives the students a theoretical and practical introduction to conversational systems, and an opportunity for a specialisation in the form of a project.

The course covers:

- Introduction to conversational systems: history, concepts, application areas
- Overview of speech- and language-engineering components for conversational systems, including both rule-based and data-driven methods
- The theory of linguistic interaction (linguistics)
- Methods for design and evaluation
- An introduction to frameworks for implementing conversational systems

## Examination

- LAB1 - Laboratory assignments, 1.5 credits, grading scale: P, F
- INL1 - Home assignments, 1.5 credits, grading scale: P, F
- PRO3 - Project assignment, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

## Ethical approach

- All members of a group are responsible for the group's work.

- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.