Language Technology

Programme course

6 credits

Språkteknologi

TDP030

Valid from: 2018 Spring semester

Determined by
Board of Studies for Computer Science
and Media Technology

Date determined

Main field of study
Programming

Course level
First cycle

Advancement level
G2X

Course offered for
- Programming

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
- discrete mathematics
- programming

Previous courses in machine learning are useful but no requirement for the course.

Intended learning outcomes
Language technology is technology for the analysis and interpretation of natural language, a key component of smart search engines, personal digital assistants, and many other innovative applications. The goal of this course is to give an introduction to language technology as an application area, as well as to its basic methods. The course focuses on methods that process text.

On completion of the course, the student should be able to:

1. explain basic methods for the analysis and interpretation of words, sentences, and texts
2. practically apply language technology methods and systems to texts and text collections
3. evaluate language technology components and systems using standard validation methods
4. judge the difficulty and the feasibility of language technology applications

Course content

- basic methods and techniques for the analysis and interpretation of words, sentences, and texts, such as text segmentation, part-of-speech tagging, syntactic analysis, semantic analysis, and text classification
- language technology systems, such as information extraction systems and question answering systems
- validation methods
- tools, software libraries, and data

Teaching and working methods

The course is given in the form of lectures, lab sessions, and supervision in connection with a minor project.

Examination

UPG1	Project assignments	2 credits	U, 3, 4, 5
LAB1	Practical assignments	2 credits	U, 3, 4, 5
TEN1	Written examination	2 credits	U, 3, 4, 5
KTR1	Optional written tests	0 credits	U, G

The optional written tests give bonus points for the first attempt at the written examination. The final grade for the course is the median of the grades awarded for LAB1, TEN1, and UPG1.

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Jalal Maleki

Examiner

Marco Kuhlmann

Course website and other links

http://www.ida.liu.se/~TDP030/

Education components

Preliminary scheduled hours: 48 h
Recommended self-study hours: 112 h

Course literature

Kurskompendium som tillhandahålls av institutionen. / Lecture notes provided by the department.