

COURSE DETAIL

LANGUAGES AND COMPILERS

Country

Netherlands

Host Institution

Utrecht University

Program(s)

Utrecht University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

103

UCEAP Course Suffix**UCEAP Official Title**

LANGUAGES AND COMPILERS

UCEAP Transcript Title

LANGUAGES&COMPILERS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

Many programs use a list of symbols as input. These lists almost always have a structure. Examples are programs in some programming language, packets containing information sent over the internet, or information a program puts into a file to be read in another program. These structures are described by grammars. These grammars can automatically generate programs that recognize the structure. This recognition process is an important component of many programs (like compilers), and the description of the compilation process also uses these grammatical formalisms. By using special classes of grammars you may or may not express more structure or guarantee beforehand that the structure is easily recognized (e.g. in linear time). Students learn how to design grammars, how to construct parsers, and how to further use the results of these parsers (e.g. generate code for a part of the programming language C#). Grammars play a central role in computer science (XML Schemas, database schemas, Game Maker Language, etc.). Prerequisite knowledge: students must have basic knowledge of functional programming, programming in Haskell.

Language(s) of Instruction

English

Host Institution Course Number

INFOB3TC

Host Institution Course Title

LANGUAGES AND COMPILERS

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

Information and Computing Sciences

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