

COURSE DETAIL

COMPILER DESIGN I

Country

Sweden

Host Institution

Uppsala University

Program(s)

Uppsala University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

115

UCEAP Course Suffix**UCEAP Official Title**

COMPILER DESIGN I

UCEAP Transcript Title

COMPILER DESIGN I

UCEAP Quarter Units

4.00

UCEAP Semester Units

2.70

Course Description

This course covers how simple imperative programming languages equivalent to C can be compiled to machine code for RISC-like machines. The course covers the following: Lexical analysis (scanning); Syntactical analysis (parsing); Program representation in Abstract Syntax Trees (AST); Symbol tables and scope rules for C-like languages; Type-checking for C-like languages; Different forms of intermediate code (IR); Generation of intermediate code; Call stacks and activation posts; Code generation for RISC-like machines; Basic blocks, control-flow graphs, liveness analysis, register allocation.

Language(s) of Instruction

English

Host Institution Course Number

1DL321

Host Institution Course Title

COMPILER DESIGN I

Host Institution Course Details

Host Institution Campus

Faculty of Science and Technology

Host Institution Faculty

Host Institution Degree

Host Institution Department

Information Technology

Course Last Reviewed

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