COURSE DETAIL

ADVANCED FUNCTIONAL PROGRAMMING
Country Netherlands
Host Institution Utrecht University
Program(s) Utrecht University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 178
UCEAP Course Suffix
UCEAP Official Title ADVANCED FUNCTIONAL PROGRAMMING
UCEAP Transcript Title ADVANCED PROGRAMMIN
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course builds upon knowledge gained in introductory courses on functional programming, languages, and compilers. Using Haskell as the course's language of choice, students look at several advanced functional programming techniques, patterns, libraries, and tools. Course includes lectures, assignments, joint discussions, and programming exercise. Topics covered include: development of tools, testing, debugging and profiling; libraries of data structures, programming languages, monads, monad transformers, arrows, and applicative functors; language features and extensions of multi-parameter type classes and functional dependencies, type families, kinds, generalized algebraic data types (GADTs), existential types, and higher-rank polymorphism.

Language(s) of Instruction
English

Host Institution Course Number
INFOAFP

Host Institution Course Title
ADVANCED FUNCTIONAL PROGRAMMING

Host Institution Course Details
https://osiris-student.uu.nl/#/onderwijscatalogus/extern/cursus?taal=en

Host Institution Campus
Utrecht

Host Institution Faculty
Faculty of Science

Host Institution Degree

Host Institution Department
Graduate School of Natural Sciences

Course Last Reviewed

2021-2022

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