Incoming student mobility

UNIOS University Unit: SCHOOL OF APPLIED MATHEMATICS AND INFORMATICS

COURSES OFFERED IN FOREIGN LANGUAGE
FOR ERASMUS+ INDIVIDUAL INCOMING STUDENTS

Department or Chair within the UNIOS Unit	School of Applied Mathematics and Informatics

Study program	Graduate Mathematics and Informatics Education Study Programme

Study level	Graduate (master)

Course title	Functional programming
Course code (if any)	I044
Language of instruction	English
Brief course description	Syllabus. 1. Introduction. Functions and functional programming. Introduction to Haskell. 2. Basic data types and classes. Lists and tuples. Function as a type. Polymorphic and overloaded types. 3. Branching. Guards. Patterns. Lambda expressions. Sections. Generators. 4. Recursion. Multiple arguments and multiple recursion. Mutual recursion. 5. Higher order functions and composition. List processing. 6. Parsing strings. Regular expressions. 7. Interactive programs. User input. 8. Declaration of types, classes and data. Recursive types. Instances. 9. Lazy evaluation and reducible expressions. Modular programming.
Form of teaching	
Form of assessment	Lectures will be illustrated using examples written in Haskell programming language. Excersises will be held both in auditorium and computer laboratory with the focus on programming in Haskell.

	Lecture and excersise attendance is mandatory. The exam consists of the written part which will be held after all the lectures and excersises. Positive scores on repeated exams, which students write during the semester, can be used as a substitute for the written exam. Students may improve their grades by writing given pieces of homework and doing the final project.
Number of ECTS	6
Class hours per week	2+2+0
Minimum number of students	
Period of realization	Winter semester
Lecturer	Domagoj Matijević