Course Descriptions None 2024-2025

Course Title	Fundamentals of Programming
Course Code	EBC2198
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
1	2-9-2024	20-10-2024	X	X		X	

Level	Intermediate
Coordinator	Andre Berger For more information:a.berger@maastrichtuniversity.nl
Language of instruction	English
Goals	This course will introduce you to the fundamentals of computer programming. It is designed for students with no prior programming experience. The goals of the course are to learn how to use the fundamental building blocks of a programming language and to get practice in the several steps of algorithm and software development. By the end of the course you should have a strong understanding of the fundamentals of Computer Science and the Java programming language. * Students understand the basic principles of computer programming and data structures. * Students apply their programming skills to translate a verbal assignment into computer language. * Students analyse the performance of their solutions through experimentation. * Students select appropriate programming techniques for verbal assignments. * Students explain the structure and methods of their programming solutions. * Students develop programs and discuss these in teams, with the aim of improving programs in terms of clarity and efficiency.
Description	You will first learn the basic principles of programming: data types, variables, statements, assignments, control statements, loops, file input/output, arrays, methods, objects, classes, etc. We will use Java, a high level, cross-platform, and well-constructed computer programming language to demonstrate those principles. Further, you will acquire skills and get practice in the several steps of basic algorithm and software development: from a description of the problem, to an idea about an approach and justified data structures, and finally the translation of the approach into an implemented programme. Formative assessment: Feedback by tutors on programming skills and assignments Summative assessment: Exam and assignments Instructional approach: Lectures, tutorials, and assignments
Literature	Recommended literature : introductory textbooks on JAVA Programming (examples listed in course manual).
Prerequisites	Analysis I, Linear Algebra, Optimisation, strong mathematical skills.
Keywords	
Teaching methods	PBL / Lecture / Assignment / Groupwork
Assessment methods	Attendance / Participation / Written Exam / Assignment
Evaluation in previous academic year	For the complete evaluation of this course please click http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM

This course belongs to the following programme / specialisation

Bachelor Business Analytics	Year 2 Compulsory Course(s)