Study programmes: Bachelor studies - Informatics	
Course name: P100 - Programming 1	
Lecturers: Predrag Janičić and other lecturers of the Department for Computer Science	
Status: Compulsory	
ECTS: 8	
Attendance prerequisites: No prerequisites	

Course aims: Acquiring basic knowledge about historical and social context of computers and computer science. Acquiring general and specific knowledge about programming in procedural programming languages using C as an example.

Course outcome: After the course, the student has adopted basic concepts of procedural programming (e.g., data types, operators, expressions, commands, functions) and phases of program development (compilation, execution, testing, debugging). The student is able, in the programming language C, to correctly implement simple programs of smaller size.

Course content:
 Short history of programming
 Basic facts about programming language C
 Data representation and operations over them
 Basic input and output in C
 Commands and control flow
 Functions
 Memory organization in execution phase
 Recursion
 Fundamental algorithms (divisibility and prime numbers, arrays, strings, matrices, polynomials, number systems and large numbers, dynamic programming, combinatorial algorithms, iterative numerical algorithms)

Literature:
1. Filip Marić, Predrag Janičić: Programiranje 1 - Osnove programiranja kroz programski jezik C, Matematički fakultet, 2015.
    2. Gordana Pavlović-Lažetić: Programiranje 1, electronic lecture notes, Matematički fakultet, 2013.
    3. Brian Kernighan, Dennis Ritchie: The C Programming Language, Prentice Hall, 1988.
            (the lecturer can choose another appropriate literature)

Number of hours: **6**	Lectures: **3**	Tutorials: **3**	Laboratory: **–**	Research: **–**

Teaching and learning methods: Frontal/Lectures/Exercises

Assessment (maximal 100 points)			
Course assignments	**points**	**Final exam**	**points**
Lectures	25	Written exam	-
Exercises / Tutorials	25	Oral exam	-
Colloquia	-	Written-oral exam	50
Essay / Project	-		