

Course title: Fundamentals of Programming 1
Course code: 63043
ECTS credits: 8
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 1
Trimester: 2
Goal: Introducing students to the basic principles of programming languages (including structured programming, selection statements, loops, arrays, and functions) and a specific application in C programming language.
Outcome: The student who successfully masters the requirements of the course will be able to: (1) design and program in C language, (2) develop good programming skills, (3) use modern C compiler and debugger and environment (Microsoft Visual Studio).
Contents of the course
Theoretical instruction:
1. Algorithms and flow diagrams
2. Programming languages
3. Numerical systems
4. Structure of C program
5. C character set
6. Preprocessor in C
7. Functions scanf() and printf()
8. Operations and operators
9. Expressions
10. Branching instructions
11. Loops
12. Functions
The emphasis in theoretical instruction is on loops and branches in a program, because without that any other instruction in terms of programming does not make sense. After that, the course covers all the basic elements of C language and insists on writing programs.

Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Students use a modern development environment (Microsoft Visual Studio) to write and debug programs.
Textbooks and References
1. Brian W. Kernighan, Dennis M. Ritchie, Programming Language C
2. Laslo Kraus, Programming Language C with Solved Problems, Akademska misao, Beograd, 2004.
3. Clovis L. Tondo, Scott E. Gimpel, The C Answer Book: Solutions to the Exercises in 'The C Programming Language,'
4. Laslo Kraus, Solved Problems in programming language C, Akademska misao, Beograd, 2005.
5. Presentations from lectures and electronic and printed material for practical classes.
Number of active classes (weekly)
Lectures:4
Practical classes:4
Other types of classes:
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures:
Activities on practical exercises:
Seminary work:
Colloquium: 30
Final exam: Points
Written exam: 70
Oral exam:
Lecturer
Milorad Paskaš, PhD; Nenad Teofilović, MSc
Associate