Study program: Modern Business Management; Module: Informatics and Business Management
Subject name: Programming and Programming Languages
Lecturer: Slavko Matanović, Ph.D. (slavko.matanovic@mbs.edu.rs)
Subject status: obligatory
ECTS: 7
Pre-requisites: -

Subject objectives

The goal is to acquire the basic and applied knowledge in programming and programming languages that are the necessary basis for further programming and projection. The subject presents the theoretical and practical basis for programming introducing the students to the basic elements of programming languages, their syntax, data types and control structures.

Subject outcomes

The students will learn theoretical and practical knowledge with different management programming languages structures, indicators, dynamic memory allocation, functions, file work, as well as the pre-processor commands in programming languages. The students are thus enabled to learn further programming languages and modern programming techniques, especially object-oriented programming techniques.

Subject description

Assignments:

Theoretical: Language C.A detailed desciption of the language basis, the program structure. Data types: scale types, types definition, types series. Input/output data conversion. The operators and the output, conversions and calculation sequence. Management structures: sequence, selection, cycles and leaps. The indicators and sequences: addresses and indicators; address arithmetics; dynamic memory allocation. Program modulazation (functions), argument transfer mechanism. Recursive functions, function indicators, main program arguments, file functions. Visibility and the variable length. The definition and the use of structures and units. File definition and file functions (closing, opening, exit, entrance). Pre-processor functions.

Practical: The exercises are auditory following the lectures. They introduce the students to the practice work with programming languages and concrete projects.

Materials
Краус, Л. (2001), *Програмски језик C*, Академска мисао, Београд.
Керниган, Б. и Ричи, Д.(1989), *Програмски језик C*, Савремена администрација, Београд.
Урошевић,В. и Ристић, О. (2008),*Програмски језик C - збирка задатака*, Висока школа струковних студија, Чачак.

Total number	**Courses:3x15=45**	**Practice:3x15=45**

Teaching methods
Lectures are auditory supported by modern teaching tools and active student participation. Exerices include:
consolidation of lectures; exams; individual work with students through seminar papers; team discussions.

Grade (maximum number of points 100)

Pre-exam assignments	points	Final exam	points
Course activity	10	written exam	
Practice	20	oral exam	30
Test-s	20	....	
Essay-s	20		