Course Unit Descriptor

Study Programme: Computer Science	
Course Unit Title: Computer Organisation	
Course Unit Code: CS305	
Name of Lecturer(s): Milan Vidaković	
Type and Level of Studies: Bachelor Academic Degree	
Course Status (compulsory/elective): Compulsory	
Semester (winter/summer): Summer	
Language of instruction: Serbian (primary), English (secondary)	
Mode of course unit delivery (face-to-face/distance learning): Face-to-face	
Number of ECTS Allocated: 6	
Prerequisites: None	

Course Aims:

Acquiring basic knowledge and skills in digital electronic components and computer hardware, as well as in low level programming languages.

Learning Outcomes:

A student will be able to comprehend basic principles of digital electronic components and computer organisation and architecture. A student will also be able to understand advanced component architectures, advanced computer architectures, and multiprocessor architecutres.

Syllabus:

Theory

Computer. Computer organisation and functioning. System and application software. Numbers. Boolean algebra. Computer arithmetics. Hardware implementation of boolean functions. Processor. Memory. Cache memory. Bus. Input-output subsystem. Peripherals.

Practice

Modern processors and organisation. Machine language and assembler programming. Using assembler, linker and debugger. Combinatory and sequential circuits simulation.

Required Reading:

1. William Stallings, Computer Organization and Architecture, Pearson, 2015

Weekly Contact Hours: 4	**Lectures:** 2	**Practical work:** 2

Teaching Methods:

Lectures and students practical work.

Knowledge Assessment (maximum of 100 points): 100

Pre-exam obligations	points	Final exam	points
Active class participation		written exam	
Practical work	60	oral exam	40
Preliminary exam(s)		…….	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam,			

project presentation, seminars, etc.