

Level: bachelor				
Course title: Computer Organisation (I242)				
Status: obligatory				
ECTS: 7				
Requirements: none				
Learning objectives Acquiring the basic knowledge and skills in digital electronic components and computer hardware, as well as in low level programming languages.				
Learning outcomes Successful students will be able to comprehend the basic principles of digital electronic components and computer organisation and architecture. Students should also be able to understand all aspects of computer architecture components, as well as to understand the advanced and multiprocessor architectures.				
Syllabus <i>Theoretical instruction</i> Computer. Computer organisation and functioning. System and application software. Numbers. Boolean algebra. Computer arithmetic. Hardware implementation of Boolean functions. Processor. Memory. Cache memory. Bus. Input-output subsystem. Peripherals. <i>Practical instruction</i> Modern processors and organisation. Machine language and assembler programming. Using assembler, linker and debugger. Combinatory and sequential circuits simulation.				
Weekly teaching load				Other: 0
Lectures: 2	Exercises: 2	Other forms of teaching: 0	Student research: 0	