

Study programmes: Bachelor studies - Mathematics				
Course name: RM03 - Introduction to organization and architecture of computer systems 1				
Lecturers: Nenad Mitić, Milan Banković, Jovana Kovačević and other lecturers of the Department of Computer science and informatics				
Status: Compulsory				
ECTS: 5				
Attendance prerequisites: No prerequisites				
Course aims: Acquiring knowledge about the organization of computer systems and about types of data representation in computers.				
Course outcome: After the course, a student holds basic knowledge about the organization of computer systems and about types of data representation in computers.				
Course content: History of information technologies development. Numerical systems. Data representation in the computer. Number representation in fixed and floating point. Representation of integer numbers. Representation of binary coded decimal numbers. Arithmetical operations with numbers in fixed and floating point. Representation of non-numerical data. Logical basics of data processing. Working principle of digital computers. Dataflow in the computer. Central processor, memory, input/output system and devices. Error detection and correction.				
Literature: 1. Nenad Mitić: Introduction to organization of computers, Faculty of Mathematics 2013. 2. Sivarama Dandamudi: Fundamentals of Computer Organization and Design, Springer-Verlag New York, 2003. 3. Articles available online (lecturer may opt for other suitable current literature)				
Number of hours: 4	Lectures: 2	Tutorials: 2	Laboratory: -	Research: -
Teaching and learning methods: Frontal, group, individual and practical.				
Assessment (maximal 100 points)				
Course assignments	points	Final exam		points
Lectures	-	Written exam		-
Exercises / Tutorials	-	Oral exam		-
Colloquia	30	Written-oral exam		70
Essay / Project	-			