

Study Program: Informatics			
Type and level of studies: Bachelor studies			
Course name: Operating systems			
Lecturer: Panić R. Stefan			
Status: Compulsory			
ECTS: 6			
Attendance Prerequisites:			
Course aims The students will gain basic knowledge about operating systems, and will become acquainted with the basic processes involved.			
Course outcome The students have acquired basic knowledge about operating systems.			
Course content Operating system model and definition. The core (kernel) of an operating system. Processes and state changes. Process operations. Process control block. Processor Assignment. The interruption mechanism. Types of interruptions. Interrupt processing. Deployment. Memory management. Single-user monitor systems. Memory allocation in partitions. Memory allocation in fixed parts. Dynamic memory allocation in parts. Folding technique. Virtual memory system. Virtual address calculation. Address computation using associative memories. Avoidance and segmentation. Memory allocation in pages. Allocate memory in segments. Input and output control. File management. Directory. Directory management commands. Directory organization. One level directory. Two level directory. Directory with tree structure. File operations. Creating File. Destroying File. Open/close file. File access. File/directory permissions. Storing File/directory. Continuous storing. Linked storing. Indexing. Block mapping.			
Literature 1. B. Đorđević, D. Pleskonjić, N. Maček, Operativni sistemi: teorija, praksa i rešeni zadaci, Mikro knjiga, Beograd, 2005. 2. W. Stallings, Operativni sistemi: Principi unutrašnje organizacije i dizajna, CET, Beograd, 2007.			
Number of active classes			Other classes
Lectures: 2	Practical classes: 2	Other forms of teaching:	
Teaching methods Lectures, laboratory work, consultations, term-tests and written examination.			
Assessment (maximum 100 points)			
Course assignments	points	Final exam	points
activity during lectures	10	written exam	30
practical classes		oral exam	30
term test(s)	30	
seminar(s)			
Total	40		60