

Study programme(s): Informatics (IM), Teaching Informatics (IC)				
Level: master				
Course title: History of informatics (code: IA413)				
Lecturer: Đura Paunić				
Status: elective				
ECTS: 4				
Requirements: none				
Learning objectives Introducing students to the most important moments in the evolution of informatics, most important scientists in the field, mathematical basics, wide range of hardware and software that was used in short, but turbulent history of informatics.				
Learning outcomes <i>Minimal:</i> Students should be able to demonstrate understanding of various factors in the evolution of the computer science and informatics, to demonstrate the key concepts that were discovered during time and illustrate them on the examples. <i>Optimal:</i> Students should be able to demonstrate understanding of the connections between causes and consequences of the different factors in the evolution of computer science and informatics, to demonstrate the key concepts that were discovered during time and illustrate them on the examples that are most representative for a given topic.				
Syllabus <i>Theory</i> Mathematical basics of informatics. The birth and periods in informatics. The evolution of the computers, with the special emphasis on the development of PCs. The first calculation tools. Calculators. Automatic machines. Electromechanical computers. Electronic digital computers. Computer generation – technological innovations (vacuum tubes, transistors, integrated circuits, microprocessors), the most successful vendors and models – typical representatives of the different periods. Various hardware components of the computer systems and their development. Moore's law. Software evolution. Operation systems, system and application software. The history of programming – programming languages, techniques and methodologies. The most influential people in the evolution of informatics and computer sciences. Evolution of informatics in Serbia. <i>Practice</i> Writing seminar papers on given topics.				
Literature 1. Ceruzzi, P.M., <i>A History of Modern Computing</i> , 2nd Ed, MIT Press, 2003 2. Goldstine, H. H., <i>The Computer from Pascal to von Neumann</i> , Princeton University Press, 1993 3. Н. Митић: Основи рачунарских система, Математички факултет, Београд, 2002. 4. Available articles from various books, journals, conference proceedings, Internet				
Weekly teaching load				Other:
Lectures: 2	Exercises:	Other forms of teaching:	Student research:	
Teaching methodology Lectures are based on the classical teaching methods including use of the video beam. Lecturer explains the most relevant information on hardware and software evolution as well as the history of programming languages. Most important principles discovered during time are illustrated on the appropriate examples. Students are introduced to typical computer architectures, the most influential hardware vendors and their most successful solutions, and to the wide range of different software categories with all the specificities that they brought. Practical instructions are devoted to analysis of the illustrative examples, discussions on the problems faced by the computer scientists of the time, smart solutions, revolutionary ideas, etc.				

Students' knowledge is tested through writing seminar paper. On the oral exam student have to demonstrate comprehensive understanding of the principle covered by the course and illustrate them by applying concrete solutions.

Grading (maximum number of points 100)

Pre-exam obligations	points	Final exam	points
activity during lectures	6	oral exam	50
practical work	6		
seminar	38		