

Study programme(s): Computer Science				
Level: Bachelor Studies.				
Course title: Computer Science: Overview & Perspectives				
Lecturer: Mirjana Ivanović				
Status: obligatory				
ECTS: 2				
Requirements: None				
Learning objectives The objective of the course is to introduce students to several subdisciplines in the computer-science field. Explain the basic concepts, history and current state, future perspectives and possible influences in the future.				
Learning outcomes <i>Minimal:</i> Successful students should be capable of understanding basic elements and significance of presented subdisciplines in the computer-science field. <i>Desirable:</i> At the end of the course it is expected that successful students deeply understand the relationships, interconnections and influences between presented subdisciplines in the computer-science field.				
Syllabus <i>Theoretical instruction</i> This course introduces computer-science majors to several essential subdisciplines in the computer-science field. The course introduces on a very basic level a range of topics from theoretical studies of algorithms and the limits of computation to practical issues of implementing computing systems in hardware and software. After an introduction to computer science as a discipline, the following subdisciplines will be covered: algorithms and data structures; programming methodology and languages; computer elements and architecture; software engineering; artificial intelligence; computer networking and communication; database systems; parallel and distributed computation; human–computer interaction; computer graphics; operating systems; social issues in computing; e-learning. Each subdiscipline will be presented in the same manner: basic notions, short history, current state and perspectives (influence of the subdiscipline on future research, but also everyday life). The course will be finished by general concluding remarks. <i>Practical instruction</i> The course has no exercises.				
Literature <i>Recommended</i> 1. Parts of different books devoted to particular topic will be used. Also different overview papers that will be available on the internet at the moment of course delivering.				
Weekly teaching load				Other: 0
Lectures: 1	Exercises: 0	Practical Exercises: 0	Student research: 0	
Teaching methodology Theoretical classes are based on the classical teaching model involving a projector and .ppt presentations. Illustrative examples will follow each presented subdiscipline. Several mini tests will be conducted during classes. To approach the oral exam students have to prepare short seminar paper on a particular topic selected from the course. At the oral exam students are expected to demonstrate the understanding of the topics covered by the course.				
Grading method (maximal number of points 100)				
Pre-exam oblications		points	Final exam	points
Mini tests		3,3,3,3	oral examination	60
Seminar paper		28		