Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Common		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Introduction to Computing		
Lecturer (for lectures)		Stojanović M. Natalija, Predić B. Bratislav, Nejković M. Valentina		
Lecturer/associate (for exercises)		Puflović M. Darko, Bogdanović D. Miloš, Davidović P. Nikola, Jovanović D. Martin, Frtunić-Gligorijević B. Milena, Veljanovski T. Marija		
Lecturer/associate (for OFE)		Puflović M. Darko, Bogdanović D. Miloš, Jovanović D. Martin, Frtunić-Gligorijević B. Milena, Veljanovski T. Marija		
Number of ECTS	6	**Course status (obligatory/elective)**	Obligatory	
Prerequisites				
Course objectives	Acquiring the knowledge about basic concepts and principles in computer science and engineering in accordance with IEEE/ACM Computing Curricula.			
Course outcomes	Theoretical and practical knowledge about principles and methods of computer functioning, both hardware and software.			
Course outline				
Theoretical teaching	Numeral systems and computer data representation. Boolean algebra and functions. Combinatorial switching networks. Combinatorial switching networks analysis and design. Standard combinatorial modules. Sequential switching networks. Standard sequential modules. Computer architecture. Organisation of central processing unit (CPU) and elements of assembly language. Input-output devices. Computer software - system and application software and software development. Computer networks, Internet and Web.			
Practical teaching (exercises, OFE, study and research work)	Conversion of numbers from decimal numeral system to binary, octal and hexadecimal numeral systems. Performing calculations in binary, octal and hexadecimal numeral system. Representations of Boolean functions. Minimization of Boolean functions. Design of combinatorial switching networks. Representation of finite automata. Introduction to the components of computer system and methods and standards of their interconnections. Illustration and monitoring of machine instructions' execution using a processor simulator. Using the Windows operating system, working with Command prompt and exploring the file system. Setting and analisys of network connection and creation of Web presentations using corresponding tools.			
Textbooks/references				
1	S. Stojković, N. Stojanović, D. Stojanović, Introduction to computing (in Serbian), Faculty of Electronic Engineering, Niš, 2014.			
2	N. Stojanović, B. Predić, V. Nejković, M. Bogdanović, M. Jovanović, N. Davidović, A. Milenković, Practical problems and solutions in Introduction to computing (in Serbian), Faculty of Electronic Engineering, Niš,2019.			
3				
4				
5				

Number of classes of active education per week during semester/trimester/year				
Lectures	**Exercises**	**OFE**	**Study and research work**	**Other classes**
2	2	1	0	0
Teaching methods	Lectures and exercises			

Grade (maximum number of points 100)			
Pre-exam duties	**Points**	**Final exam**	**Points**
Activity during lectures		**Written exam**	
Exercises	15	**Oral exam**	50
Colloquia	35		
Projects			