

## Specification for the book of courses

<b>Study program</b>		Electrical Engineering and Computer Science		
<b>Module</b>		Communications and Information Technologies		
<b>Type and level of studies</b>		Undergraduate Academic Studies		
<b>The name of the course</b>		Probability and Statistics		
<b>Lecturer (for lectures)</b>		Milošević M. Dušan		
<b>Lecturer/associate (for exercises)</b>		Jovančić S. Vladan		
<b>Lecturer/associate (for OFE)</b>				
<b>Number of ECTS</b>	6	<b>Course status (obligatory/elective)</b>	Elective	
<b>Prerequisites</b>				
<b>Course</b>	Mastering basic knowledge of probability and statistics.			
<b>Course outcomes</b>	Theoretical basic knowledge in the probability theory and statistics.			
<b>Course outline</b>				
<b>Theoretical teaching</b>	Random events. Definition of probability. Conditional probability and independence of events. Total probability rule and Bayes' formula. Random variables. Distribution function. Numerical characteristics of random variables. Mathematical expectation, moments, dispersion, standard deviation. Chebyshev's inequality and the rule of "three sigma". Characteristic functions and properties. Distribution of discrete and continuous random variables. Central limit theorem. Basic concepts of statistics. Population and random sample, Measures of central tendency and dispersion. Central Statistics Theorem. Displaying statistical data from a sample. Statistical distributions. Getting acquainted with the SPSS software package.			
<b>Practical teaching (exercises, OFE, study and research)</b>	Exercises follow the lectures.			
<b>Textbooks/references</b>				
1	D. M. Milošević, L. Z. Rančić, M. S. Petković, Mathematics IV (in Serbian), University of Niš, Faculty of Electronic Engineering, 2015.			
2	M. Merkle: Probability and statistics for engineers and engineering students (in Serbian), Academic Thought, Belgrade 2006.			
3				
4				
5				
<b>Number of classes of active education per week during semester/trimester/year</b>				
<b>Lectures</b>	<b>Exercises</b>	<b>OFE</b>	<b>Study and research work</b>	<b>Other classes</b>
3	2	0	0	0
<b>Teaching methods</b>	Lectures, exercises auditive, computer exercises, consultation.			
<b>Grade (maximum number of points 100)</b>				
<b>Pre-exam duties</b>	<b>Points</b>	<b>Final exam</b>	<b>Points</b>	
<b>Activity during lectures</b>	10	<b>Written exam</b>	30	
<b>Exercises</b>		<b>Oral exam</b>	30	
<b>Colloquia</b>	30			
<b>Projects</b>				