

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Computing and Informatics		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Probability and Statistics		
Lecturer (for lectures)		Milošević M. Dušan		
Lecturer/associate (for exercises)		Jovančić S. Vladan		
Lecturer/associate (for OFE)				
Number of ECTS	3	Course status (obligatory/elective)	Elective	
Prerequisites				
Course	Mastering basic knowledge of probability and statistics.			
Course outcomes	Theoretical basic knowledge in the probability theory and statistics.			
Course outline				
Theoretical teaching	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, Central Statistics Theorem. Displaying statistical data from a sample. Statistical distributions. Parameter estimation and efficiency ratings. Confidence intervals. Linear regression and correlation.			
Practical teaching (exercises, OFE, study and research)	Exercises follow the lectures.			
Textbooks/references				
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				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	1	0	0	0
Teaching methods	Lectures, exercises auditive, consultation.			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	10	Written exam	30	
Exercises		Oral exam	30	
Colloquia	30			
Projects				