1.	**Course title**	Stochastic Processes
2.	**Course code**	БК-И-11
3.	**Semester**	9
4.	**Unit offering the course**	Faculty of Computer Science and Engineering
5.	**ECTS**	6
6.	**Goals of the study programme**	
	Random processes are mathematical model for many processes in computer science. The purpose of this course is introducing the theory of random processes, studying the characteristics of special random processes, in order to use them for modeling of real processes.	
7.	**Contents of the study programme**	
	Random processes: definition, characteristics, classification, transformations. Stationary of random processes. Processes with independent and stationary increments. Markov processes with discrete and continuous set of states: birth-dead processes, Markov chain, Embedded Markov chain.Special random processes: random walk, Poisson process, Wiener process, branching processes. Renewal processes.Advanced queuing theory.	