1.	Course Title	Introduction to Stochastic Processes			
2.	Code	F18L2S090			
3.	Study program	Software engineering and information systems			
4.	Study Program Organizer	Faculty of Computer Science and Engineering			
5.	Degree (first, second, third cycle)	first cycle			
6.	Academic year / semester 2 / summer / optional	7. ECTS credits 6			
8.	Teacher	full professor Verica Bakeva			
9.	Course enrollment prerequisites	Веројатност и статистика или Основи на теорија на информации			
10.	Course program goals (competencies): Students will be able for modelling of stochastic processes in real situations.				
11.	Course program content: Stochastic processes: definition, characteristics, and transformations. Stationary of random processes. Markov chain. Branching processes. Poisson process. Markov process. Queuing systems. Brownian motion (Winner process).				
12.	Learning methods: Lectures using presentations, interactive lectures, exercises (using equipment and software packages), teamwork, case studies, invited guest lecturers, independent preparation and defense of a project assignment and seminar work.				
13.	Total available time	6 ECTS x 30 hours = 180 hours			
14.	Distribution of the available time	30 + 30 + 15 + 25 + 80 = 180 hours			
15.	Teaching activity forms		15.1.	Lectures – theoretical teaching	30 hours
			15.2.	Exercises (laboratory, auditory), seminar papers, teamwork	30 hours
16.	Other activity forms		16.1.	Project Tasks	15 hours
			16.2.	Independent Learning Tasks	25 hours
			16.3.	Home learning	80 hours

17.	Assessment methodology		
	17.1.	Tests	0 points
	17.2.	Seminar paper/project (presentation: written and oral)	10 points
	17.3.	Activity and learning	0 points
	17.4.	Final exam	90 points

18.	Assessment criteria (points/grade)	up to 50 points	5 (five) (F)
		51 to 60 points	6 (six) (E)
		61 to 70 points	7 (seven) (D)
		71 to 80 points	8 (eight) (C)
		81 to 90 points	9 (nine) (B)
		91 to 100 points	10 (ten) (A)
19.	Course completion and final exam requirements	Realized activities 15.1 and 15.2	
20.	Teaching Language	Macedonian and English	
21.	Teaching quality evaluation method	Internal evaluation mechanisms and questionnaires	
22.	Course Material		

22.1. Mandatory course material

No.	Author	Title	Publisher	Year
1	Howard M. Taylor, Samuel Karlin	An Introduction to Stochastic Modeling	Academic Press	1998
2	Верица Бакева, Магдалена Георгиева	Случајни процеси	интерна скрипта	0

22.2. Additional course material

No.	Author	Title	Publisher	Year