

1.	Course title	Stochastic Processes		
2.	Course code	CSES418		
3.	Study program	FCSE		
4.	Unit offering the course	FCSE		
5.	Undergraduate/postgraduate/PhD	Undergraduate		
6.	Year/semester 2/summer/elective	7. ECTS: 6		
8.	Teacher(s)	prof. Verica Bakeva prof. Zhaneta Popeska		
9.	Course prerequisites	Probability and Statistics		
10.	Goals (competences): Students will be able for modelling of stochastic processes in real situations.			
11.	Course content: Stochastic processes: definition, characteristics, and transformations. Stationary of random processes. Stationary independent increment processes. Markov processes. Poisson process. Brownian motion. Renewal processes. Queuing systems.			
12.	Teaching methods: Lectures supported by slide presentations, interactive lectures, trainings (using lab equipment and software packages), team work, case studies, invited guests and lectures, individual practical assignments presentations, seminar paper, e-learning (forums, consultations).			
13.	Total available time	6 ECTS x 30 h = 180 h		
14.	Distribution of the available time	30+45+25+40+40 = 180		
15.	Teaching activities	15.1.	Lectures	30 hours
		15.2.	Training (labs, problem solving), seminar and team work	30 hours
16.	Other activities	16.1.	Project work	15 hours
		16.2.	Self study	50 hours
		16.3.	Home work	55 hours
17.	Grading			
	17.1.	Tests		80 points
	17.2.	Seminar work/project (written or oral presentation)		15 points
	17.3.	Active participation		5 points
18.	Grading criteria		to 50 points	5 (five) (F)
			from 51 to 60 points	6 (six) (E)
			from 61 to 70 points	7 (seven) (D)
			from 71 to 80 points	8 (eight) (C)
			from 81 to 90 points	9 (nine) (B)

			from 91 to 100 points	10 (ten) (A)	
19.	Final exam prerequisites	Successful completion of activities 15.1 and 15.2			
20.	Course language	Macedonian and English			
21.	Quality assurance methods	Internal evaluation mechanisms supported by student polls			
22.	Literature				
	22.1.	Compulsory			
		No.	Authors	Title	Publisher
		1.	Howard M. Taylor, Samuel Karlin	An Introduction to Stochastic Modeling	Academic Press
	22.2.	Mandatory			
		No.	Authors	Title	Publisher
		1.	Bakeva, V., Georgieva	Stochastic Processes	Textbook prepare for DAAD project "Center of Excellence for Applications of Mathematics"
					2006