1.	Course title	Computational game theory		
2.	Course code	IIS-I-13		
3.	Study program	Master studies in Computer Science and Engineering, modulus Intelligent Information Systems		
4.	Unit offering the course	**FCSE**		
5.	Undergraduate/master/PhD	**Master**		
6.	Year/semester 1/summer/elective	7. ECTS: **6**		
8.	Teacher(s)	Assistant Professor Lasko Basnarkov		
9.	Course prerequisites	None		
10.	Goals (competences): Students will learn the basic game theory models. They will gain knowledge how to construct models for simple problems and how to solve those problems with the game theory.			
11.	Course content: Game representations, basic concepts. Equilibrium, existence of equilibrium, complexity of calculations. Submodular game. Potential game. Incomplete information game. Extensive game. Repeated game. Stochastic game. Evolutionary game theory. Coalition game. Implementation theory and mechanism design.			
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 hours = 180 hours	
14.	Distribution of the available time		130 + 0 + 50 = 180 hours	
15.	Teaching activities	15.1.	Lectures	130 hours
		15.2.	Training (labs, problem solving), seminar and team work	0 hours
16.	Other activities	16.1.	Project work	15 hours
		16.2.	Self study	15 hours
		16.3.	Home work	20 hours
17.	Grading			
	17.1.	Tests		65 points
	17.2.	Seminar work/project (written or oral presentation)		25 points
	17.3.	Active participation		10 points
18.	Grading criteria		to 59 points	5 (five) (F)
			from 60 to 68 points	6 (six) (E)
			from 69 to 76 points	7 (seven) (D)
			from 77 to 84 points	8 (eight) (C)
			from 85 to 92 points	9 (nine) (B)
			from 93 to 100 points	10 (ten) (A)

19.	Final exam prerequisites	Successfully completed activities 15.1 and 15.2
20.	Course language	Macedonian and English
21.	Quality assurance methods	Internal evaluation and student questionnaires

22.	Literature					
	22.1.	Compulsory				
		No.	Authors	Title	Publisher	Year
		1.	Martin J. Osborne, Ariel Rubinstein	A Course in Game Theory	MIT Press	1994
		2.	Martin J. Osborne	An introduction to game theory	Oxford University Press	2003
		3.	Drew Fudenberg, Jean Tirole	Game Theory	MIT Press	1991
	22.2.	Additional				
		No.	Authors	Title	Publisher	Year
		1.				
		2.				
		3.				