

Study Programme: Computing And Control Engineering			
Course Unit Title: Applied Game Theory			
Course Unit Code: AU511			
Name of Lecturer(s): Rapačić Milan, Kapetina Mirna			
Type and Level of Studies: master			
Course Status (compulsory/elective): elective			
Semester (winter/ summer): winter			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 6			
Prerequisites: none			
Course Aims: Acquisition of theoretical and practical fundamentals of game theory, with applications to engineering problems.			
Learning Outcomes: The acquired knowledge can be used in solving concrete engineering problems and is a basis for further professional and scientific development.			
Syllabus. 1. Introduction. 2. Game theory as an extension of decision theory. 3. Strategic games. Examples. 4. Nash equilibrium and other solution concepts. 5. Computing Nash equilibrium in finite games 6. Evolution and learning in games. 7. Evolutionary games 8. Differential games			
Required Reading: Relevant literature in English, tbd			
Weekly Contact Hours: 2	Lectures: 3	Practical work: 0	
Teaching Methods: Lectures, numerical calculation practice, computer practice classes, laboratory practice, consultations.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

