

Program	Level		Third cycle			
	Name of the program		SEE Doctoral Studies in Mathematical Science			
COURSE						
Course title	Cayley graphs of semigroups					
Course code	Semester	Course status	ECTS	Contact (L+AE+LE) hours		
PMAT 695	II	Elective course	10	30		
Lecturer	Prof. dr. Emil Ilić-Georgijević					
Course Goals	The goal is to introduce students to the basics of structural semigroup theory and its application in algebraic graph theory with an emphasis on Cayley's graphs, and to refer them to active research topics.					
COURSE CONTENT						
<ul style="list-style-type: none"> - Structure of semigroups - Cayley graph semigroup - Characterization Cayley graph different classes of semigroups - Transitive Cayley graphs 						
LITERATURE			GRADING			
[1] A. H. Clifford, G. B. Preston, The Algebraic Theory of Semigroups, Amer. Math. Soc., Providence, R.I, 1961. [2] A. V. Kelarev, Graph Algebras and Automata, Marcel Dekker, 2003. [3] U. Knauer, K. Knauer, Algebraic Graph Theory: Morphisms, Monoids and Matrices, De Gruyter, 2019.			Criterion		Maximum points	Minimum points
			1.	Assignments		
			2.	Projects	40	20
			3.	Final exam	60	35
			Total		100	55