

Program		Type of studies (cycle)	Third cycle		
		Name of the program	SEE Doctoral Studies in Mathematical Sciences		
Course					
Course title		Finite fields and their applications			
Course code	Semester	Course status	ECTS credits	Contact hours	
	I		10	30	
Teaching staff	Teacher	Prof. Dr. Amela Muratović-Ribić			
	Other staff	Prof. Dr. Enes Pašalić			
Course goals	We want to offer advanced course from finite fields and applications, so the students are able to use this area of mathematics in theory of coding, kriptography and other applications and work on the research from this area of mathematics.				
Course content/topics					
<ul style="list-style-type: none"> • Structure of finite fields • Polynomials over finite fields • Equations over finite fields • Factorization of polynomials • Exponential sums • Permutation polynomials • Linear recurrence sequences • Applications in combinatorics, coding theory and pseudorandom numbers. 					
LITERATURE		Grading			
1. A Course in Combinatorics, Lint, Wilson, Cambridge, 2001 2. Enumerative Combinatorics, Stanley, R.P., Cambridge Studies in Advanced Mathematics, 2001 3. Combinatorial Theory, Aigner., Springer, 1997			Criterion	Points	Cut-off points
		1.	Homework assignment	30	17
		2.	Project	20	13
		3.	Final exam	50	25
		Total			100