
		UNIVERSITY OF EAST SARAJEVO					
		Faculty of Philosophy					
		Study programs: Mathematics and informatics, Mathematics and physics					
		Bachelor of Science		IV - year of studies			
<b>Full course title</b>		Algebra					
<b>Department</b>		Department of Mathematics - Faculty of Philosophy					
Course code		Status		Semester		ECTS	
MR7-3		obligatory		VII		5	
<b>Lecturer/s</b>		Assoc. prof. Emil Ilić-Georgijević, PhD					
<b>Teaching assistant/s</b>		Jelena Radović, MSc					
Number of classes/ teaching workload (per week)			Individual workload (number of hours per semester)			Individual workload coefficient $S_0^1$	
L	AT	LT	L	AT	LT	1.5	
2	2	0	45	45	0		
total teaching workload (number of hours per semester) 60 h			total individual workload (number of hours per semester) 90 h				
Total course workload (teaching + individual): 150 hours per semester							
<b>Learning outcomes</b>		1. Introduction to advanced topics in group theory 2. Introduction to field extensions 3. Familiarity with basic concepts and theorems of Galois theory  4. Стицање основног знања из алгебре које омогућава праћење напредних курсева из алгебре и из других области у којима алгебра има важно мјесто.					
<b>Requirements</b>		None					
<b>Teaching methods</b>		Lectures, tutorials, homework problems					
<b>Course content (by weeks)</b>		1. Groups. Symmetric groups. 2. Group actions. Cayley's theorem. 3. Cauchy's theorem. p-subgroups. 4. Conjugacy. Sylow's theorems. 5. Direct group products, and group sums. 6. Solvable groups. Unsolvability of $S_n, n \geq 5$ . 7. Finite abelian groups. 8. Rings. Rings of polynomials. 9. Fields and field extensions. 10. Finite and algebraic field extensions. Algebraic closure. 11. Normal and separable field extensions. 12. Finite fields. 13. Galois theory. 14. Solvability by radicals. 15. Geometric constructions.					
Compulsory reading list							
Author/s		Title, publisher			Year	Pages (from - to)	
I.N. Herstein		Topics in algebra 2nd edition. John Wiley & Sons			1975.		
I. Stewart		Galois theory 2nd edition, Chapman and Hall			1990.		
Complementary reading list							
Authors/s		Title, publisher			Year	Pages (from - to)	
Types of student work evaluation				Points	Percentage		
Pre-exam obligations							
attendande of lectures/tutorials				5	5%		
homeworks				5	5%		
written test 1				20	20%		
written test 2				20	20%		
Final exam							
final exam (oral)				50	50%		
TOTAL				100	100 %		

<b>Web page</b>	
<b>Date of verification</b>	