

Study programme(s): Mathematics (AL)				
Level: bachelor				
Course title: Graph Theory 2 (AL-19)				
Lecturer: Vojislav Petrović				
Status: elective				
ECTS: 10				
Requirements: none				
Learning objectives Special topics of Graph Theory. Introduction to contemporary techniques, results and open problems.				
Learning outcomes Students are expected to be able to read and understand papers and to make first steps in research.				
Syllabus <i>Theoretical instruction</i> Graph colorings. Digraphs, tournaments. Flows in networks. Probabilistic methods. Extremal graphs. Ramsey theory.				
Literature 1. J. A. Bondy and U.S.R. Murty, <i>Graph Theory</i> , Series: Graduate Texts in Mathematics, Vol. 244, Springer, 2008. 2. I. Bošnjak, D. Mašulović, V. Petrović, R. Tošić, <i>Zbirka zadataka iz teorije grafova</i> , Univerzitet u Novom Sadu, 2005. 3. G. Chartrand, L. Lesniak, <i>Graphs & Digraphs</i> , Chapman & Hall, London 2005. 4. D. West, <i>Introduction to Graph Theory</i> , Second Edition, Prentice Hall, 2001. 5. V. Petrović, <i>Teorija grafova</i> , Univerzitet u Novom Sadu, 1998.				
Weekly teaching load				Other:
				0
Lectures: 2	Exercises: 0	Other forms of teaching: 0	Student research: 6	
Teaching methodology Lectures, discussions, consultings.				
Grading method (maximal number of points 100)				
Pre-exam obligations	points	Final exam	points	
Homeworks	20	Verbal exam	80	