

Program	Level		First cycle				
	Name of the program		Mathematics Education, Pure Mathematics				
COURSE							
Course title	Selected Topics in Geometry						
Course code	Semester	Course status	ECTS	Contact	hours		
PMAT 395	VI	Mandatory/ Elective course	5	(L+AE+LE)	2+2+0		
Lecturer							
Course Goals	The course aims to deepen the understanding of surface measurement in a plane and volume in space and the fundamental relationships of geometric objects and bodies in three-dimensional space.						
Learning Outcomes	After completing the course, students will understand the concept of area in a plane and the concept of volume in space. They will be able to understand some combinatorial properties of polytopes. Students will be able to solve advanced tasks in geometry and tasks for mathematical competitions that concern the calculation of areas and volumes.						
COURSE CONTENT							
<ul style="list-style-type: none"> - Basic figures in the plane and their relationships - Area of the Polygons - Formulas for the area of different polygons - Basic figures in three-dimensional space and their relationships - Dihedrals and trihedrals - Basic properties of polyhedra and their combinatorial properties - Round figures in three-dimensional space - Formulas for calculating the volume of different bodies in space 							
LITERATURE							
<p>[1] Dominik Palman, Planimetrija, Element, 1999 [2] Dominik Palman, Stereometrija, Element, 2005 [3] V.V. Prasolov, V. M. Tikhomirov, Geometry, AMS, 2001 [4] V. Stojanovic, Stazama sampiona, Matematiskop, 1999</p>							
STUDENT WORKLOAD (hours in a semester)							
Lectures	30	Exercises	30	Individual work	65	T o t a l	125
GRADING			REMARKS				
Criterion	Maximum points	Minimum points					
Midterm exams	50	27,5					
Final exam	50	27,5					
T o t a l	100	55					