

Study program		Level of studies	Third cycle			
		Title of the study program	Science and mathematics education			
<b>COURSE</b>						
Course title		<b>Selected chapters of combinatorics</b>				
Course ID	Semester	Course status	ECTS credits	Contact hours		
PMAT 602	I	Elective	7	60		
Lecturers		Lecturer in charge				
		Other lecturers				
Course aims	The goal is to train students to independently carry out the procedure of analyzing trace elements, familiarising themselves with the measures to be taken to prevent contamination of the sample.					
<b>CONTENT</b>						
#	Teaching units			Contact hours		
				L	E/S	C
	<ul style="list-style-type: none"> <li>- Generating functions, ordinary and exponential generating functions with applications</li> <li>- Polya theory of counting</li> <li>- Latin squares.</li> <li>- Hammarad's matrices.</li> <li>- Designs. Projective and orthogonal geometries.</li> <li>- Association schemes</li> </ul>			30	30	
<b>LITERATURE</b>			<b>ASSESSMENT OF LEARNING</b>			
[1] J.H.van Lint, R.M.Wilson, A Course in Combinatorics, Cambridge prees, 2001 [2] Beth T., Jungickel D., Lenz H. Design Theory Volume 1. And 2. Birkhauser, 1999 [3] Aigner M., Combinatorial Theory, Springer, 1997 [4] Bonna M., Introduction to Enumerative Combinatorics, McGraw-Hill, 2007 [5] Merris R. Combinatorics, Wiley, 2003 Stanley R.P., Enumerative Combinatorics, Volume 1, CUP, 2011			Assessment method	Points	Threshold	
			1.	Partial exams	25	15
			2.	Seminar papers	25	10
			3.	Final exam	50	30
			4.			
			Total	100	55	