

<b>Study programmes:</b> PhD – Mathematics				
<b>Course name:</b> Non-Euclidean geometries				
<b>Lecturers:</b> Zoran Lučić, Miroslava Antić, Mirjana Đ. Đorić, Srđan N. Vukmirović, Zoran P. Rakić				
<b>Status:</b> Optional				
<b>ECTS:</b> 9				
<b>Attendance prerequisites:</b> -				
<b>Course aims:</b> Acquisition of general and specific knowledge in foundations of hyperbolic geometry. Preparing student for advanced courses in this area.				
<b>Course outcome:</b> Upon completion of the course, the student has necessary knowledge about basic notions of real projective geometry, homogeneous coordinates, line, plane and space elliptic geometry, hyperbolic geometry, circles and triangles, area of surface, Euclidean models of hyperbolic geometry. Student is qualified to individual understanding basic examples and solving problems from this area.				
<b>Course content:</b> Real projective geometry. Homogeneous coordinates. Elliptic geometry in one, two and three dimensions. Projective geometry. Hyperbolic geometry. Circles and triangles. Area of surface. Euclidean models.				
<b>Literature:</b>				
1. H. S. M. Coxeter, Non-Euclidean geometry, 1998, The Math. Soc. of America, Washington, 6th edition.				
<b>Number of hours:</b> 10	<b>Lecures:</b> 4	<b>Tutorials:</b> -	<b>Laboratory:</b> -	<b>Research:</b> 6
<b>Teaching and learning methods:</b> Lectures/ Tutorials				
<b>Assessment (maximal 100 points)</b>				
<b>Course assignments</b>	<b>points</b>	<b>Final exam</b>		<b>points</b>
Lectures	-	Written exam		-
Exercises / Tutorials	20	Oral exam		60
Colloquia	-	Written-oral exam		-
Essay / Project	20			