Program	Level	Second cycle
	Name of the program	Mathematics Education, Mathematics and Informatics Education

COURSE				
Course title	**Projective Geometry**			
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)
PMAT 436	VI	Mandatory/Elective course	5	2+2+0
Lecturer				
Course Goals	Acquiring basic and specialized knowledge in the field of projective geometry. Developing geometrical intuition and preparation for more advanced geometry courses.			
Learning Outcomes	At the end of this course, students will be able to understand basic terms from projective geometry. Students will know fundamental geometry theorems as well as knowledge of basic geometrical constructions. Students will be able to understand examples and solve tasks and problems by using basic techniques.			

COURSE CONTENT

- Affine and projective coordinates.
- Affine and projective space.
- Axioms for the general projective plane. Simple consequences of the axioms.
- The principle of duality. Desargues configuration.
- The fundamental theorem, Pappus's theorem, Pascal's theorem and Brianchon's theorem.
- Two-dimensional projectivities.
- Conics and Quadrics.

LITERATURE

[1] N. Bokan, S. Vukmirović, Projectsvna geometrija, Matematički fakultet, Beograd, 2004.
[2] Z. Stanić, S. Vukmirović, Zbirka zadataka iz projektivne geometrije, Matematički fakultet, Beograd, 2003.
[3] H.S.M. Coxeter, Projective Geometry, Springer, Second edition, 2003
[4] Marcel Berger, Geometry Revealed, Springer-Verlag, 2010
[5] Judith N. Cederberg, A Course in Modern Geometries, Springer-Verlag, Second edition, 2005

STUDENT WORKLOAD (hours in a semester)

Lectures	30	Exercises	30	Individual work	40	T o t a l	100

GRADING			REMARKS
Criterion	Maximum points	Minimum points	
Midterm exams	50	30	
Final exam	50	25	
T o t a l	100	55	