**Study programmes**: MASTER STUDIES - Mathematics

Course name: Teaching methodology in geometry with school practice

Lecturers: Zoran Lučić, Mirjana Đ. Đorić, Srđan N. Vukmirović

**Status**: Optional

**ECTS**: 8

## Attendance prerequisites: -

**Course aims**: Acquisition of general and specific knowledge in didactics of geometry

**Course outcome:** Upon completion of the course, the student mastered fundamentals of didactics of geometry. The students are qualified for deeper understanding basic geometric concepts and ideas. Also, the students are qualified for transferring the acquired knowledge to the listeners.

## **Course content:**

Historical frameworks in which mathematics originated. Numbers in geometry. Groups in geometry. Mathematics and nature. Mathematics and culture. Historical milestones.

## Literature:

- 1. Zoran Lučić, Ogledi iz istorije antičke geometrije, Beograd 2008.
- 2. B.L. Van der Waerden, Science Awakening, P. Noordorf ltd, Groningen, Holand, 1954.
- 3. T.L. Heath, A History of Greek Mathematics, vol. I--II, Dover, New York, 1981.
- 4. D.W. Henderson, Experiencing Geometry on Plane and Sphere, Prentice Hall, Upper Saddle River, 1996.
- 5. W.R. Knorr, The Ancient Tradition of Geometric Problems, Birkhauser, Boston, Basel, Stuttgart, 1986.
- 6. Z. Lučić, Euklidska i hiperbolička geometrija, Total Design, Beograd, 1997.
- 7. D. Lopandić, Geometrija, Naučna Knjiga, Beograd 1979.

Number of hours: 7	Lectures: 3	Tutorial	s: 2	Laboratory: -	Research: 2
Teaching and learning methods: Frontal / Tutorial					
Assessment (maximal 100 points)					
Course assignme	ents po	ints	Final exam		points
Lectures	2	20 W	Written exam		-
Exercises / Tutorials		- O1	Oral exam		60
Colloquia		- W	Written-oral exam		-
Essay / Project	2	20	•		