



Course: Teaching Mathematics and Science
Type and level of studies: MAS
Study program: International Teacher Education Programme
Teacher(s): Aleksandra Mihajlović, Nenad Vulović, Jelena Mladenović
Language of instruction: English
ECTS: 6
Prerequisites: /
Semester: Fall semester

Course objectives:
 Introducing students to the methodology of teaching Mathematics and Science, building students' skills and abilities to teach mathematics and science in lower grades of primary school, building students' skills and abilities to organize and manage the classroom, and using modern technologies in teaching mathematics and science.

Learning outcomes:
 Upon completion of this course, students will be able to: know and understand how children learn primary mathematics and science and how they construct mathematical and basic scientific knowledge; know the content and how to teach it, plan and implement effective teaching and learning; create lesson plans.

Course contents:
 Introduction to the Methodology of Teaching Primary Mathematics. Methodological approach to teaching primary mathematics contents: students will study how to teach contents about sets, natural numbers and arithmetical operations, spatial and number relations, fractions, equations and inequalities, geometry and measures. Problem-solving methods and strategies.
 Understanding of the nature of science. Teaching science by inquiry. Science concepts associated with selected science topics: a knowledge base in physical, chemical, earth, and biological sciences.
 Lesson planning and design in primary mathematics and science teaching.

References:
 Teaching student-centred mathematics: grades 3-5 / John A. Van de Wale; Louann H. Lovin.
 Teaching student-centred mathematics: grades K-3 / John A. Van de Walle; Louann H. Lovin
 The Art of Teaching Primary School Science. Edited by Vaille Dawson and Grady Venville. Routledge, 2022.
 The Really Useful Science Book: A framework of knowledge for primary teachers. Steve Farrow. Routledge, 3rd Ed. Materials from lectures.

Number of active teaching hours				Other classes
Lectures: 30	Seminars: 30	Project work:	Independent work:	

Teaching methods:
 Lecturing; presentations; discussions; simulations of real teaching situations; pair and group work; independent work.

Examination methods (maximum 100 points)			
Exam prerequisites	No. of points:	Exam prerequisites	No. of points:
student's activity during lectures		oral examination	
practical classes/tests		written examination	
seminars/homework	10	project presentation	30 (15+15)
project	60 (35+35)	portfolio	
other		Other	

Grading system		
Grade	Number of points	Description
10	91 – 100	Excellent

9	81 – 90	Exceptionally good
8	71 – 80	Very good
7	61 – 70	Good
6	51 – 60	Passing
5	≤ 50	Failing