Study program: Class Teacher Education

Type and level of studies: Master studies, second cycle degree program

Course unit: Contemporary Approaches in Mathematics Teaching

#### Teacher in charge: Aleksandra Mihajlovic, PhD, associate professor

Language of instruction: English

ECTS credits and course status: 6 ECTS, elective

#### Prerequisites: /

Semester: Winter semester (I)

# Course unit objective

To enhance students knowledge and understanding of innovative teaching approaches and current research and implications for classroom practice; to train students to be able to transform mathematical content through use of various contemporary teaching methods.

#### Learning outcomes of Course unit

Upon completion of this course, students will: develop ways of exploring mathematics teaching and learning, will be able to use and creatively integrate different teaching approaches, will develop their research skills.

#### **Course unit contents**

## Theoretical and practical classes

Part 1 (4 credits): Contemporary teaching approaches and current researches in mathematics teaching and learning. Concept and characteristics of some teaching approaches and methods: problem oriented instruction, differentiated instruction, programmed instruction, heuristics method of teaching, open-ended approach, interdisciplinary teaching, project-based learning, inquiry-based learning.

Part 2 (2 credits): Comparative analyses of mathematical education in different countries.

#### Literature

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 Materials from lectures

Number of active				
Lectures (including tutorials):	Seminars: 30	Other forms of classes: /	Independent work: Independent study	Other classes: /
30				

### **Teaching methods**

6 x 2hrs Lectures (including tutorials, class is a combination of theoretical and practical activities), 2 x 2hrs Seminars, Independent Study

Examination methods ( maximum 100 points)							
Exam prerequisites	No. of points:	Final exam	No. of points:				
Student's activity during lectures		oral examination					
practical classes/tests		written examination					
Project		2x1 word project	100				
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				