Course: Contemporary Approaches to Teaching Mathematics

Type and level of studies: MAS

Study program: Class Teacher Education

Teacher(s): Aleksandra Mihajlović

Language of instruction: English

ECTS: 5

Prerequisites: /

Semester: Winter semester

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 the use of various contemporary teaching
methods.

Learning outcomes

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 research 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 teaching hours:				**Other classes**
Lectures: 30	Seminar: 30		Independent work:	

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	
Seminars/homework		tests	
Project	50 + 50		
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