


Course: Advanced Classes in Mathematics	
Type and level of studies: UAS	
Study program: Class Teacher Education	
Teacher(s): Verica Milutinović	
Language of instruction: English	
ECTS: 5	
Prerequisites: /	
Semester: Winter semester	

Course unit objective
 To enable students to:

- Plan and independently conduct supplementary mathematics classes from grades one to four of primary school.
- Apply various approaches to solving mathematical problems.
- Critically evaluate and select mathematical problems appropriate for children who show special interest in mathematics.
- Monitor and assess children's performance and learning outcomes.
- Motivate children for further engagement and interest in mathematics.
- Solve problems within the areas defined by the curriculum for supplementary mathematics instruction.
- Prepare children for mathematics competitions.

Learning outcomes
 Upon completion of the course, students will be able to:

- Motivate children to engage in additional mathematical activities.
- Plan and organize supplementary mathematics classes.
- Independently conduct supplementary mathematics classes from grades one to four.
- Solve mathematical problems defined by the supplementary curriculum.
- Select and prepare children for mathematics competitions.

Course unit contents
 Working with mathematically gifted children. Motivating children for further interest in mathematics. Content and methodological transformation of supplementary mathematics teaching. Planning and implementation of supplementary mathematics classes. Selection of tasks for children showing special interest in mathematics. Preparation of children for mathematics competitions.

Literature
 Tirri, K., & Margrain, V. (Eds.). (2024). *Identifying and supporting giftedness and talent in schools*. MDPI.
 Singer, F. M., Sheffield, L. J., Freiman, V., & Brandl, M. (Eds.). (2016). *Research on and activities for mathematically gifted students* (ICME-13 Topical Surveys). Springer.
 Judge, L. (2020). *Logic puzzles for gifted students*. Rosemead City School District.

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

Teaching methods:
 Lectures, small group work, discussions, and project-based activities

**Examination methods
 (maximum 100 points)**

Exam prerequisites	No. of points:	Final exam	No. of points:
Student's activity during lectures	10	oral examination	20
practical classes/tests		written examination	10
Seminars/homework	30	tests	
Project	30		
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