

Study Programme: Early Childhood Teacher
Course Unit Title: Basic elements of concepts in mathematics
Course Unit Code: V-3-1-8-0
Name of Lecturer(s): Márta Takács, Diana Zita
Type and Level of Studies: Undergraduate Studies (BA)
Course Status (compulsory/elective): Compulsory
Semester (winter/summer): Winter
Language of instruction: Hungarian
Mode of course unit delivery (face-to-face/distance learning): Face-to-face learning
Number of ECTS Allocated: 4
Prerequisites: -
Course Aims: Systematization and additional skills in elementary mathematics, operations within real number sets as well as basic theoretical elements in logic. The aim of the course is that future elementary school teachers use elementary methods of mathematics with certainty in solving algebra and functional mathematical problems in number sets of real and natural numbers.
Learning Outcomes: Students will acquire skills how to do autonomously practical activity and prepare a curriculum of mathematics in lower grades of elementary schools. Students will be able to build on the systematic knowledge and conduct further research or study narrower fields of mathematics.
Syllabus: <i>Theory</i> Elements of mathematical logic. Sets of operation over sets. Number sets and elementary operations within them. Relationships. Functions. Equations and inequalities. Theory of numbers: partibility. Numeral systems. <i>Practice</i> Processing and presentation of exercises within the fields done in lectures as well as related exercises which are taught in lower grades of elementary school.
Required Reading: <i>Compulsory:</i> Béres, Zoltán: (2007): <i>Válogatott matematikafeladatok – a szabadkai Magyar Tannyelvű Tanítóképző Kar első évfolyama részére</i> . Szabadka: MTTK. Csóka, Géza (2002): <i>Elemi matematika példatár</i> , Budapest: Nemzeti Tankönyvkiadó. Такач, Марта (2013): <i>Припремљени е-материјал са тематиком предмета</i> (120 страница), Учитељски факултет у Суботици. <i>Optional:</i>

Matematika feladatgyűjtemény a tanítóképző matematika tanításához (2006): Budapest: Nemzeti Tankönyvkiadó.

Matematika a tanítóképző matematika tanításához (2006): Budapest: Nemzeti Tankönyvkiadó.

Учћумлић, М. – Миличић, П. (1983): Збирка задатака из више математике, Београд: Научна књига.

Weekly Contact Hours:

60(30)

Lectures: 2 (30)

Practical work: 2 (30)

Teaching Methods:

Lecture, practice, presentation, discussion, presentation, individual work, consultation.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	30
Practical work		oral exam	20
Preliminary exam(s)	40	
Seminar(s)			

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.