

Module name	Early mathematical education
Erasmus code	011
ISCED code	
Language of instruction	English
Website	http://www.umcs.pl/pl/offer-for-erasmus-student,4667.htm
Prerequisites	no
ECTS points hour equivalents	Contact hours (work with an academic teacher): 15 Total number of hours with an academic teacher : 15 Number of ECTS points with an academic teacher : 1 Non-contact hours (students' own work): 75 Total number of non-contact hours : 75 Number of ECTS points for non-contact hours : 2 Total number of ECTS points for the module: 3
Educational outcomes verification methods	active attendance, projects method or practical exercises
Description	The aim of the module is to acquaint students with the essence of play-based mathematical education. Students learn the theories of early mathematical education, meet types of tasks and games and their characteristics and internal and external conditions of play-based mathematic education.
Reading list	Bilewicz-Kuźnia B., <i>The essence of ways and conditions in which children explore the word of geometry</i> , Komplexnos a integrita w predprimárnej, primárnej,a specialnej edukcji, Zborník príspevkow s mezinárodnou účasťou konanej 20-2 septembra 2012 na Pedagogickej falulte Prešovskej univerzity v Prešove, Alena Prídavková, Martin Klimovič (eds.) Prešov, 2012, s. 227-34. Boaler Jo, <i>Mathematical mindset</i> , Jossey -Bass, 2016. Davis B., <i>Spatial reasoning in the early years</i> , Routledge, New York, 2015. Pollman M. J <i>Strengthening early math and science skills through spatial learning</i> , Paul Brookles Publishing , USA, 2010.
Educational outcomes	KNOWLEDGE Student knows the elementary terminology used in didactic of early years mathematic education and the basic theories of math education, play-based learning and teaching, understands the mathematical concepts and building mathematical and spatial skills. SKILLS Student is able to solve common problems pedagogical and anticipate the impacts of specific pedagogical activities; is able to plan, implement and evaluate educational mathematic activities ATTITUDES Students prepare responsibly for their work, designs and pedagogical activities
Practice	

Information about classes in the cycle

Website	http://www.umcs.pl/pl/offer-for-erasmus-student,4667.htm
Educational outcomes verification methods	active attendance and coursework , essay about: a) chosen topic or b) CBT practical exercises.
Comments	contact: barbara.bilewicz@poczta.umcs.lublin.pl
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A list of topics	1. Mathematical mindsets - what does it means? 2. A curriculum that promoted mathematical and spatial development. 3. Power of mistakes and struggles. 4. Math in the environment. 5. Rich mathematical tasks. 6. Games and activities. 7. Spatial reasoning and thinking, practical tasks.
Teaching methods	presentation, discussion, tasks, games
Assessment methods	practical exercises.