Basic information about the subject (independent of the cycle)

Module name	**Mathematical anxiety (MA) 15CA**
Erasmus code	
ISCED code	
Language of instruction	English
Website	
Prerequisites	Basic knowledge in psychology
ECTS points hour equivalents	Contact hours (work with an academic teacher) 15 Consultations with an academic teacher 15 Total number of hours with an academic teacher 30 Number of ECTS points with an academic teacher 1 Non-contact hours (students' own work) 60 Total number of non-contact hours 60 Number of ECTS points for non-contact hours 2 **Total number of ECTS points for the module 3**
Educational outcomes verification methods	coursework: MA student's own assessment, the results analysis, design of intervention.
Description	The module covers mathematical anxiety symptoms, subtypes, sources and consequences, assessment tools, and the main directions of intervention in school settings. During the course student finds out about Math anxiety models and emotions involved in mathematics and school subject; gets to know some tools of MA assessment, rules of intervention and building mathematical fluency in students by helping them to overcome uncomfortable emotions related to mathematics in their educational experience.
Reading list	1. Blackemore S-J., Frith U. (2005). The Learning Brain. Lessons for Education. London: Blackwell Publishing. 2. Devine A., Fawcett K., Szucs D., Dowker A. (2012). Gender differences in mathematics anxiety and the relation to mathematics performance while controlling for test anxiety. *Behavioral and Brain Functions*, 8, 33. 3. Dowker A., Looi Ch. (2016). Mathematics anxiety: What have we learned in 60 years? *Frontiers in Psychology,* 7, 508, 1-13. 4. Mareschal D., Butterworth B., Tolmie A. (eds.) (2013). Educational Neuroscience. Oxford: Wiley

	Blackwell. 5. Nunes T., Bryant P. (1996). Children doing mathematics. Oxford: Blackwell Publishers.
Educational outcomes	**KNOWLEDGE - student knows:** 1. the theoretical background of mathematical anxiety (MA) 2. what are MA main symptoms, clinical criteria, ways/tools of assessment and intervention **SKILLS - student is able to:** 1**.** identify MA in primary education students 2. implement knowledge on MA assessment and intervention into educational practice **ATTITUDES - student:** 1. understands his/her need of self-development in gaining knowledge related to education
Practice	

Information about classes in the cycle

Website	
Educational outcomes verification methods	coursework: MA student's own assessment, the results analysis, design of intervention.
Comments	Contact:u.oszwa@umcs.pl
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	SKILLS - student is able to: 1**.** identify MA in primary education students 2. implement knowledge on MA assessment and intervention into educational practice **ATTITUDES - student:** 1. understands his/her need of self-development in gaining knowledge related to education
A list of topics	1. Mathematics and emotions. Victorious and vicious circles of Math success or failure. 2. Math anxiety as a specific type of school fear - its general characteristics and specific symptoms. 3. Subtypes of Math anxiety - analysis based on the research and students educational experience. 4. Math anxiety models - three hypotheses on the relations between MA and mathematical difficulties. 5. MA sources: biological, personality-based, environmentally induced. 6. Preservice teachers with MA and their influence on students' level of the mathematical fear. 7. The consequences of the presence of MA in students personal and educational development. 8. MA, gender and stereotype threat. 9. The measurement and assessment scales to identify students with Math anxiety, to recognize its subtypes, and to estimate its level. 10. MA reduction - the main directions of intervention for teachers, parents, and educational psychologists.
Teaching methods	seminar, group discussion, project, interactive lecture, explanation
Assessment methods	coursework: MA student's own assessment, the results analysis, design of intervention.