

Basic information about the subject (independent of the cycle)

Module name	Mathematical learning difficulties in educational practice
Erasmus code	
ISCED code	
Language of instruction	English
Website	
Prerequisites	Basic knowledge in developmental psychology
ECTS points hour equivalents	<p>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</p> <p>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</p>
Educational outcomes verification methods	Designing of table/computer number game for MLD students
Description	The module covers main directions and ways of implementation of basic knowledge on mathematical learning difficulties into educational practice. During the course student gets to know about number sense development and its disturbances, analyzes main factors of mathematical school readiness; finds out about Math Anxiety and emotions involved in problem solving; gets to know some methods of MLD assessment, rules of intervention and building mathematical fluency in students with special needs.
Reading list	<ol style="list-style-type: none"> 1. Blackemore S-J., Frith U. (2005). The Learning Brain. Lessons for Education. London: Blackwell Publishing. 2. Geake J. (2009). The Brain at School. Glasgow: Open University Press. 3. Mareschal D., Butterworth B., Tolmie A. (eds.) (2013). Educational Neuroscience. Oxford: Wiley Blackwell. 4. Nunes T., Bryant P. (1996). Children doing mathematics. Oxford: Blackwell Publishers.
Educational outcomes	<p>KNOWLEDGE - student knows:</p> <ol style="list-style-type: none"> 1.the theoretical background of math learning difficulties (MLD) 2. what are MLD main symptoms, clinical criteria, ways/tools of assessment and intervention <p>SKILLS - student is able to:</p> <ol style="list-style-type: none"> 1. identify MLD in primary education 2. implement knowledge on assessment and intervention into educational practice <p>ATTITUDES - student:</p> <ol style="list-style-type: none"> 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	Designing of the game on numbers for students with MLD
Comments	Contact: u.oszwa@poczta.umcs.lublin.pl
Reading list	<ol style="list-style-type: none"> 1. Butterworth B. (1999). <i>The Mathematical Brain</i>. London: MacMillan. 2. Gillum J. (2012). Dyscalculia: issues for practice in educational psychology. <i>Educational Psychology in Practice</i>, 28, 3, 287-297. 3. Kucian K., von Aster M. (2015). Developmental dyscalculia. <i>European Journal of Paediatrics</i>, 174, 1-13. 4. Nunes T., Bryant P. (1996). <i>Children doing mathematics</i>. Oxford: Blackwell Publishers.
Educational outcomes	<p>KNOWLEDGE - student knows:</p> <ol style="list-style-type: none"> 1. the theoretical background of math learning difficulties (MLD) 2. what are MLD main symptoms, clinical criteria, ways/tools of assessment <p>SKILLS - student is able to:</p> <ol style="list-style-type: none"> 1. identify MLD 2. implement knowledge on assessment and intervention into their own educational practice <p>ATTITUDES - student:</p> <ol style="list-style-type: none"> 1. understands his/her need of self-development related to education
A list of topics	<ol style="list-style-type: none"> 1. Maths and emotions. Victorious and vicious circles. 2. Math anxiety (MA) - types, assessment scales. 3. Coping with MA at school. Teachers and students with MA. 4. Mathematical cognition - developmental stages. 5. MLD main symptoms, clinical criteria, assessment methods and tools. 6. DediMe, Zareki, Dyscalculia Screener and other MLD assessment batteries. 7. Basic rules for table number games constructing. 8. <i>Number Race</i> and other computer games as good examples of evaluated intervention tools in primary education.
Teaching methods	seminar, discussion, project, interactive lecture
Assessment methods	Designing number game for MLD students