

Basic information about the subject (independent of the cycle)

Module name	Developmental dyscalculia in research (DDR) 15CA
Erasmus code	
ISCED code	
Language of instruction	English
Website	
Prerequisites	Basic knowledge in educational 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: 2-3 A4 written pages of student's own review of the academic article on developmental dyscalculia
Description	The module covers fundamental evidence-based facts on DD. During the course student gets to know about ICD-10 and DSM5 criteria of DD, its symptoms, subtypes and mechanisms, analyzes the directions of its assessment and intervention.
Reading list	1. Butterworth B. (1999). The Mathematical Brain. London: MacMillan. 2. Gillum J. (2012). Dyscalculia: issues for practice in educational psychology. <i>Educational Psychology in Practice</i>, 28, 3, 287-297. 3. Hinton V., Strozier S., Flores M. (2014). Building mathematical fluency for students with disabilities or students at-risk for mathematics failure. <i>International Journal of Education in Mathematics, Science and Technology</i>, 2, 4, 257-265. 4. Kucian K., von Aster M. (2015). Developmental dyscalculia. <i>European Journal of Paediatrics</i>, 174, 1-13. 5. Nunes T., Bryant P. (1996). Children doing mathematics. Oxford: Blackwell Publishers.
Educational outcomes	KNOWLEDGE - student knows:

	1.the theoretical background of DD 2. DD domain-specific and domain-general symptoms, its subtypes and clinical criteria of professional recognition. SKILLS - student is able to: 1. identify student at-risk of DD 2. recognize special educational needs of student's with DD ATTITUDES - student: 1. understands his/her need of self-development related to education
Practice	

Information about classes in the cycle

Website	
Educational outcomes verification methods	coursework: 2-3 A4 pages of student's own review of the academic paper on developmental dyscalculia
Comments	Contact: e-mail:u.oszwa@umcs.pl
Reading list	1. Butterworth B. (1999). The Mathematical Brain. London: MacMillan. 2. Gillum J. (2012). Dyscalculia: issues for practice in educational psychology. <i>Educational Psychology in Practice</i> , 28, 3, 287-297. 3. Hinton V., Strozier S., Flores M. (2014). Building mathematical fluency for students with disabilities or students at-risk for mathematics failure. <i>International Journal of Education in Mathematics, Science and Technology</i> , 2, 4, 257-265. 4. Kucian K., von Aster M. (2015). Developmental dyscalculia. <i>European Journal of Paediatrics</i> , 174, 1-13. 5. Nunes T., Bryant P. (1996). Children doing mathematics. Oxford: Blackwell Publishers.
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	related to education
A list of topics	1. MLD in DSM5 and ICD10. Criteria and comparison. 2. DD in research papers. Definitions, epidemiology, models. 3. Numerosity and number processing - what kind of them do we use in everyday life? (Arabic, magnitude, ordinal, cardinal, word numbers, Roman, etc). 4. Typical and disturbed trajectories of number processing development. 5. Symptoms of DD - in calculation, reasoning, others. 6. Neuroscience of DD - its brain area and mechanisms. 7. Assessment tools for DD in educational psychology. 8. Intervention guidelines and directions. 9. DD articles group discussion. 10. Review of the research paper on DD - tips and suggestions.
Teaching methods	seminar, discussion, interactive lecture, academic analyses, explanation
Assessment methods	review: 2-3 A4 pages of student's own review of the chosen academic paper on developmental dyscalculia