

Basic information about the subject (independent of the cycle)

Module name	Developmental dyscalculia in research
Erasmus code	
ISCED code	
Language of instruction	English
Website	
Prerequisites	Basic knowledge in developmental 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	2-3 A4 pages of student's own review on academic paper on developmental dyscalculia (DD)
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	2-3 A4 pages of student's own review on academic paper on developmental dyscalculia (DD)
Comments	Contact: e-mail: u.oszwa@poczta.umcs.lublin.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.
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
A list of topics	1. DD in DSM5 and ICD10. Criteria and comparison of international classifications. 2. DD in research papers. Definitions, models, mechanisms. 3. Symptoms of DD - domain- general (ie. working memory) and domain-specific (ie. calculation, mathematical reasoning deficits). 4. Neuroscience of DD. 5. Mathematical reasoning and concept development - theories, models and disturbances. 6. DD assessment directions. 7. Intervention guidelines in DD for school psychologists and educators.
Teaching methods	seminar, discussion, interactive lecture
Assessment methods	2-3 A4 pages of student's own review on academic paper on developmental dyscalculia