

Subject card

Subject name and code	Mathematics Teaching Students with Special Needs, PG_00207041						
Field of study	Mathematics						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Institute of Mathematics -> Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Elżbieta Mrożek				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		2.0		18.0	50
Subject objectives	The aim of the classes is to familiarize students of the teaching section with the issues of working with students with specific needs in the field of learning mathematics.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[MATMU2_K04] is ready to take care of the achievements and traditions of professions related to analytical modeling and data analysis by thinking and acting in an entrepreneurial manner, improving his/her competences and popularizing knowledge		The student deepens and develops his or her competences by analyzing problems that arise for a mathematics teacher when working with students with specific needs and selecting methods and techniques to solve them.		[SK2] presentation/project/paper/report [SK8] observation of student's independent or team work		
Subject contents	The problem of individual differences among students of mathematics (level of abilities, type of intelligence, type of perception, gender, motivation, etc.). Symptoms of excessive difficulties in learning mathematics. Diagnosis of students - their difficulties, but also strengths and interests. Information on the functioning of children with dyslexia, dyscalculia, hyperactivity and other types of dysfunctions. Tips for working with such students in mathematics lessons. Autism spectrum and mathematical abilities. Corrective and compensatory classes in mathematics: concept, program, methods. Individual remedial programs. Examples of techniques (for teachers and parents of students) supporting motivation to learn, concentration, memorization.						
Prerequisites and co-requisites	not applicable						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	observation of the student's attitude		51.0%		0.0%		
	project		51.0%		50.0%		
	activity		51.0%		50.0%		

Recommended reading	Basic literature	E. Gruszczyk-Kolczyńska, Why can't children learn mathematics?, Institute of Trade Union Publishing, Warsaw 1989. E. Gruszczyk-Kolczyńska, Children with specific difficulties in learning mathematics, WSiP, Warsaw 1992. B. Stryczniewicz, Taming math. How to overcome difficulties with mathematics in primary school?, Wydawnictwo NOWIK Sp.j., Opole 2013. B. Stryczniewicz, Working with a student who has difficulties with mathematics. Auxiliary book for a secondary school teacher, Wydawnictwo NOWIK Sp.j., Opole 2012. Articles from magazines for teachers (Mathematics, Mathematics in School, "Teachers Mathematics plus Information Technology", etc.). Materials for so-called remedial classes in mathematics and individual therapies. Educational publishing websites, Education Development Center (ore.pl) Current education law regarding education of students with specific educational problems.
	Supplementary literature	Selected articles from magazines for teachers (Mathematics, Mathematics at School, "Teachers of Mathematics plus Information Technology", etc.).
	eResources addresses	
Example issues/ example questions/ tasks being completed	not applicable	
Work placement	Not applicable	

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