

School of Education / Special Education Teaching
2022 - 2023 Academic Year
MATHEMATICS DISORDERS: IDENTIFICATION and INTERVENTION
Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
MATHEMATICS DISORDERS: IDENTIFICATION and INTERVENTION	ÖE3212081	Spring Semester	2+0	2	4
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Elective				
Course Coordinator	Assist.Prof. Özge ÖZLÜ ÜNLÜ				
Name of Lecturer(s)	Assist.Prof. Özge ÖZLÜ ÜNLÜ				
Assistant(s)					
Aim	In this course, the following topics will be covered: learning disability and mathematics; math development; causes of math difficulties; signs of math difficulty; assessment of math difficulty; assessment tools; research-based intervention methods for math difficulties; adaptations.				
Course Content	This course contains; Mathematics and Learning Disabilities; Mathematical Development,Causes of a math learning disability, characteristics of children with math learning disability,Symptoms of math learning disability,Models for identifying individuals with math learning disability,Models for identifying individuals with math learning disability; Response to Intervention (RTL),Assessment of math learning disability,Research-based intervention method in math disability,Teaching strategies for math learning disability-1: Basic arithmetic operations and fluency,Teaching strategies for math learning disability-2: Concrete-Representational-Abstract Instructional Sequence and Touch -Math strategy,Teaching strategies for math learning disability-3: Schema-based instruction and Solve it! strategy,Teaching strategies for math learning disability-4: Problem solving with mnemonic strategies,Teaching strategies for math learning disability-5: Self-Regulation Strategies,Sample practices for math learning disability,Sample practices for math learning disability.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
At the end of this course, the student will be able to demonstrate the following knowledge and skills related to the diagnosis and intervention of mathematical difficulties: Defines learning difficulties; Defines math difficulty;			2	A	
Explains the development of mathematics in learning difficulties; Explains the causes of math difficulties;			2	A	
Explains the symptoms of math difficulty;			2	A	
Explains the assessment of math difficulty;			2	A	
Defines/examples assessment tools for mathematical difficulties;			1, 2	A	
Defines / illustrates research-based intervention methods in math difficulty;			1, 2, 6, 7	A	
Exemplifies classroom adaptations;			1, 21, 6, 7	A, C	
Conducts applications			2, 21, 4, 6, 7	A	
Teaching Methods	1: Lecture, 2: Question - Answer, 21: -, 4: Exercise, Practice, 6: Role Model, Making an example, 7: Role Play				
Assessment Methods	A: Written Exam, C: Homework				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Mathematics and Learning Disabilities; Mathematical Development	Melekoğlu ve Çakıroğlu, (2018), Part 9, s. 239-274.			
2	Causes of a math learning disability, characteristics of children with math learning disability	Melekoğlu ve Çakıroğlu, (2018), Bölüm 1, s.1-32; Bölüm 9, s. 239-274; Melekoğlu (2022) Bölüm 1, s.2-19			
3	Symptoms of math learning disability	Melekoğlu ve Çakıroğlu, (2018), Bölüm 3, s. 61-84. Melekoğlu (2022) Bölüm 2, s.22-40.			
4	Models for identifying individuals with math learning disability	Melekoğlu (2022) Part 3, s.44-63.			
5	Models for identifying individuals with math learning disability; Response to Intervention (RTL)	Melekoğlu (2022) Part 3, s.44-63. Melekoğlu ve Çakıroğlu, (2018), Part 5, s.109-132. Melekoğlu ve Çakıroğlu, (2018), Part 9, s.239-274.			
6	Assessment of math learning disability	Melekoğlu (2022) Part 4, s.66-97.			
7	Research-based intervention method in math disability	Melekoğlu ve Çakıroğlu, (2018), Part 9, s. 239-274.			
8	Teaching strategies for math learning disability-1: Basic arithmetic operations and fluency	Melekoğlu ve Çakıroğlu, (2018), Part 6, s. 128-154. Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı IV			
9	Teaching strategies for math learning disability-2: Concrete-Representational-Abstract Instructional Sequence and Touch -Math strategy	Melekoğlu ve Çakıroğlu, (2018), Part 7, s. 158-201. Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı IV			
10	Teaching strategies for math learning disability-3: Schema-based instruction and Solve it! strategy	Melekoğlu ve Çakıroğlu, (2018), Part 8, s. 201-235. Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı IV			
11	Teaching strategies for math learning disability-4: Problem solving with mnemonic strategies	Melekoğlu ve Çakıroğlu, (2018), Part 10, s.264-288. Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı V			
12	Teaching strategies for math learning disability-5: Self-Regulation Strategies	Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı V			
13	Sample practices for math learning disability	Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı V			
14	Sample practices for math learning disability	Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitabı V			
Evaluation Methods			Weight(%)		
Midterm Exam			40		
General Exam			60		
Resources					
Yıkmaş, A. (2005). Etkileşime Dayalı Matematik Öğretimi. Ankara: Kök Yayıncılık. Özmen (ed) (2017), Öğrenme Güçlüğü Sınıf içi Destek Kitapları Melekoğlu, M. A ve Çakıroğlu, O. (2017). Özel öğrenme güçlüğü olan çocuklar, Vize Yayıncılık.					