Course Syllabus

Code - Course Title	**MTE523 - Problem Solving in Mathematics Education**
Course Type	I. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. HÜSEYİN BAHADIR YANIK

Mode of Delivery	Online
Prerequisites	None
Courses Recomended	None
Recommended Resources	- John A. Van de Walle, Karen S. Karp ve Jennifer M. Bay-Williams\'ın \"Elementary and Middle School Mathematics: Teaching Developmentally (Allyn&Bacon;, PEARSON)- Cathcart, W. G., Pothier, Y. M., Vance, J. H., & Bezuk, N. S. (2006). Learning mathematics in elementary and middle schools (4th ed.). Prentice Hall: NJ: Merril.- Charles, R. & Lester, F. (1982). Teaching problem solving: What, why, and how. Palo Alto, CA: Dale Seymour Pub.
Work Placement	none

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to Problem Solving	
Week - 2		Problem Types and Complexity of Problems	
Week - 3		Problem-Solving Process	
Week - 4		Problem Solving Strategies	
Week - 5		Problem Solving Strategies	
Week - 6		Problem Based Instruction	
Week - 7		Problem Based Instruction	
Week - 8		Problem Posing	
Week - 9		Problem Posing	
Week - 10		Research in Problem Solving	
Week - 11		Research in Problem Solving.	
Week - 12		Problem Posing	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 13		Problem Posing	
Week - 14		Problem Posing	

Learning Outcomes

#	Learning Outcome
1	Explains problem and problem types.
2	Knows and compares diffrent problem solving approaches
3	Explains advantages and disadvantages of problem solving approaches.
4	Explains problem solving steps.
5	Solves problems using problem solving steps.
6	Knows problem solving strategies.
7	Uses problem solving strategies while solving a problem.
8	Knows problem posing strategies.
9	Pose problem(s) using problem posing strategies.
10	Explains complexity of mathematical problems.
11	Sorts problems based on their levels of complexity.
12	Knows and Interprets the Results of Problem Solving Research.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	40
Final Exam	1	60
	Sum (%)	**100**