Course Syllabus

Code - Course Title	**MTE515 - Learning and Teaching Geometry**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. NİLÜFER KÖSE

Mode of Delivery	The mode of delivery of this course is face to face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	None
Recommended Resources	Cecconi, S., Capponi, B., & Bellemain, F. (2003). Cabri classe II. Nice: CRDP Académie de Nice Les Editions Archimède. *Centre Informatique Pédagogique (CIP). (1996). Apprivoiser la géométrie avec Cabri-Géomètre. Genève: CIP. *Clarou, P., *Laborde, C., & Capponi, B. (2001). Géométrie avec cabri- scénarios pour le lycée. Grenoble : CNDP. *King, J. R. & D. Schattschneider (Eds), Geometry Turned On! Dynamic Software in Learning, Teaching, and Research (pp.15-24). America: The Mathematical Association of America. *Güven, B. (2002). Dinamik geometri yazılımı cabri ile keşfederek geometri öğrenme. Yayınlanmamış Yüksek Lisans Tezi, Karadeniz Teknik Üniversitesi *Köse, N. Y. (2008). İlköğretim 5. Sınıf Öğrencilerinin Dinamik Geometri Yazılımı Cabri Geometriyle Simetriyi Anlamlandırmalarının Belirlenmesi: Bir Eylem Araştırması, Yayınlanmamış doktora tezi. Eskişehir: Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü. *Köse, N. Y., & A. Özdaş (2009). İlköğretim 5. Sınıf Öğrencileri Geometrik Şekillerdeki Simetri Doğrularını Cabri Geometri Yazılımı Yardımıyla Nasıl Belirliyorlar?, [Elektronik Dergi]. İlköğretim-Online, 8(1), 159-175.
Work Placement	Not Applicable

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Why learn geometry? Fostering children's geometric thinking	
Week - 2		What are geometric habits of mind and components? Evaluation of activites in lterms of geometric habits of mind.	
Week - 3		Investigaton and evaluation of studies. Geometry learning theories (van Hiele, Piaget)	
Week - 4		Investigaton and evaluation of studies, the key concepts and components of geometry teaching and learning	
Week - 5		Investigaton and evaluation of studies, geometric measurements within the framework of mental habits	
Week - 6		Reasoning and connection ability in geometric habit of minds	
Week - 7		Investigaton and evaluation of studies, Triangles and the teaching of triangles.	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 8		Investigaton and evaluation of studies, Quadrilaterals and teaching of quadrilaterals	
Week - 9		Investigaton and evaluation of studies, Geometric transformations and teaching of transformations.	
Week - 10		Investigaton and evaluation of studies, Patterns, tessellations, fractals teaching	
Week - 11		Investigaton and evaluation of studies, Geometric solids and teaching of solids.	
Week - 12		Investigaton and evaluation of studies, Concept of dimension in geometry	
Week - 13		Investigaton and evaluation of studies, evaluations of curriculums.	
Week - 14		Evaluations	

Learning Outcomes

#	Learning Outcome
1	explains cognitive processes and interactions (between this process) in geometrical activity.
2	analyze geometric thinking and components for fostering geometric thinking
3	analyze geometric concepts mathematiclly and discuss the relationship of these concepts with the real world
4	will able to evaluate geometry teaching in curriculums

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.