Course Syllabus

Code - Course Title	**MTE609 - Evelu.of Dyn. Geo. Soft. Used for Geo. Ins. in Pri. Schools**
Course Type	I. SEMESTER
Laboratory + Practice	3+0
ECTS	**7.5**
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	There is no recommended optional programme component for this course.

Recommended Resources	Baki, A. (2001). Bilişim teknolojisi ışığı altında matematik eğitiminin değerlendirilmesi. Milli Eğitim Dergisi,149, 26-31. Baki, A. (2004). Problem solving experiences of student mathematics teachers through Cabri: A case study. Teaching Mathematics and Its Applications, 23 (4), 172-180 Battista, M. T. (1999). Geometry results from the third international mathematics and science study. Teaching Children Mathematics. 5(6), 367-373. Battista, M. T. (2001). Shape makers: A computer environment that engenders students' construction of geometric ıdeas and reasoning. In J. Tooke& N. Henderson (Eds.), Using information technology in mathematics education (ss.105-120). USA:The Haworth Pres. 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. Choi-Koh, S. S. (1999). A student's learning of geometry using the computer. The Journal of Educational Research, 92(5), 301-311. Clarou, P., & Laborde, C. (2000). Regards sur l'intégration de Cabri-Géomètre. In G.L.. Clarou, P., Laborde, C., & Capponi, B. (2001). Géométrie avec cabri- scénarios pour le lycée. Grenoble : CNDP. De Villiers, M. (1997). The role of proof in investigative, computer-based geometry: Some personal reflections, In J. R. King & D. Schattschneider (Eds), Geometry Turned On! Dynamic Software in Learning, Teaching, and Research (pp.15-24). America: The Mathematical Association of America. Gillis, J. M. (2005). An investigation of students conjectures in static and dynamic geometry environments. Dissertation Abstract International, 66 (04), 171. (UMI No: AAT 3173483) Glass, B. J. (2001). Implication of geometric transformations in the multiple dynamically linked representations. Dissertation Abstract International, 62 (03), 951. (UMI No: AAT 3009596) Güven, B. (2002). Dinamik geometri yazılımı cabri ile keşfederek geometri öğrenme. Yayınlanmamış Yüksek Lisans Tezi, Karadeniz Teknik Üniversitesi Hannafin, R. D., Burruss, J. D., & Little, C. (2001). Learning with dynamic geometry programs: Perspectives of Teachers and Learners. The Journal of Educational Research, 94 (3), 132-144. Hazzan,O., & Goldenberg E.P. (1997) Students' understanding of the notion of function in dynamic geometry environments. International Journal of Computers for Mathematical Learning, 1, 63-291. Hölzl, R. (2001). Using dynamic geometry software to add contrast to geometric situations- A case study. International Journal of Computers for Mathematical Learning, 6, 63-68. 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. Laborde, C. (2001). Intergration of technology in the design of geometry tasks with Cabri-Geometry. International Journal of Computers for Mathematical Learning, 6, 283-317. Moss, L. J. (2001). The use of dynamic geometry software as a cognitive tool. Dissretation Abstract International, 61 (11), 184. (UMI No: AAT 9992879). Moyer, T. O. (2003). An investigation of the geometer's sketchpad and van Hiele levels. Dissertation Abstract International, 64 (11), 184. (UMI No: AAT 3112299) Ng, K.E.D., & Teong, S. K. (2003). The geometer's sketchpad for primary geometry: A framework. Micromath, 19 (3), 5-9.
Work Placement	N/A

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction of the course and Cabri Geometry software	
Week - 2		Introduction of Cabri Geometry software: Explore of quadrileterals	
Week - 3		Investigation of basic properties of dynamic geometry software in geometry teaching in elementary grade	
Week - 4		Investigation of basic properties of dynamic geometry software in geometry teaching in elementary grade	
Week - 5		Presentation: “The learning environment which provide development of geometric thinking"	
Week - 6		Dynamic geometry software in consideration of learning theories	
Week - 7		Dynamic geometry software in consideration of learning theories	
Week - 8		Examination of researches about dynamic geometry software in consideration of learning theories	
Week - 9		Presentation: Evaluation of researches about dynamic geometry software for geometry teaching and learning	
Week - 10		Presentation: Evaluation of researches about dynamic geometry software for geometry teaching and learning	
Week - 11		Evaluation of worksheets in researches about dynamic geometry software for geometry teaching and learning	
Week - 12		Evaluation of worksheets in researches about dynamic geometry software for geometry teaching and learning	
Week - 13		Evaluation of worksheets in researches about dynamic geometry software for geometry teaching and learning	
Week - 14		General Evaluation	

Learning Outcomes

#	Learning Outcome
1	The researcher/student will be able to recognize dynamic geometry softwares using mathematics education.
2	The researcher/student will be able to explain fundamental feature of dynamic geometry softwares for geometry instruction in grade elementary school.
3	The researcher/student will be able to evaluate learning environment provide develop geometric thinking in elementary grade.
4	The researcher/student will be able to analyzes dynamic geometry softwares in lights of learning theories.

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**