Course Syllabus

Code - Course Title	**ETE525 - Augmented and Virtual Reality Technologies in Education**
Course Type	I. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	DOÇ. DR. HAKAN ALTINPULLUK

Mode of Delivery	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	Virtual, Augmented, and Mixed Realities in Education by Dejian Liu, Chris Dede, Ronghuai Huang, John Richards3D Graphics: A Visual Approach by R. J. WolfeVisualization Handbook by Charles D. Hansen and Chris R. Johnson
Work Placement	This is not appropriate for the course.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Definitions and Types of Virtual Learning Technologies	
Week - 2		History of Virtual Learning Technologies	
Week - 3		Features of Augmented Reality	
Week - 4		Features of Virtual Reality	
Week - 5		Features of Mixed Reality	
Week - 6		Classifications of Other Three-Dimensional Virtual Learning Technologies (Augmented Reality – Cross Reality – Augmented Virtuality – Augmented Reality – Hyper Reality)	
Week - 7		Midterm Exam	
Week - 8		Metaverse, Blockchain and NFT Concepts and Their Relationships	
Week - 9		Usability of Virtual Learning Technologies in Educational Environments	
Week - 10		Mobile Virtual Learning Application Development Platforms	
Week - 11		Mobile 3D Application Development – I (Blippar Application)	
Week - 12		Mobile 3D Application Development – II (Vuforia Application)	

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 13		Presentations of Developed Applications	
Week - 14		Final Exam	

Learning Outcomes

#	Learning Outcome
1	Defines virtual learning technologies that can be used in educational environments.
2	List the features of augmented, virtual and mixed reality technologies.
3	Defines the concepts of Metaverse, Blockchain and NFT and explains the relationships between them.
4	Lists mobile application development platforms and programming languages.
5	Develops and presents a three-dimensional mobile application.

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.