Course Syllabus

Code - Course Title	**DOT205 - Material, Light and Render I**
Course Type	III. SEMESTER
Laboratory + Practice	2+2
ECTS	**5.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	DR. ÖĞR. ÜYESİ EMİN BAKAN

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	Homo Ludens, The Art of Game Design, Fundamentals of Game Design, Game Mechanics: Advanced Game Design
Work Placement	N/A

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to texture and material concepts	
Week - 2		UV coordinate systems and basic placement	
Week - 3		Introduction to albedo, normal, and other maps	
Week - 4		PBR principles and their visual counterparts	
Week - 5		Texture brushes and texture painting techniques	
Week - 6		Digital texture tools such as Substance Painter	
Week - 7		Procedural texture generation and variations	
Week - 8		Photo-based texture creation and editing	
Week - 9		Shader systems and material properties	
Week - 10		Texture assignment processes in game engines	
Week - 11		Memory management and texture optimization	
Week - 12		Atmosphere and aesthetics in material representation	
Week - 13		Asset compatibility and working with texture sets	

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 14		Project presentation and evaluation	

Learning Outcomes

#	Learning Outcome
1	Define basic texture and material concepts
2	Apply UV mapping and texture placement processes
3	Produce texture maps compatible with PBR systems
4	Create textures using digital tools with various techniques
5	Enhance visual impact through shader and material combinations
6	Manage texture assignment and optimization processes in game engines

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	10
Final Exam	1	40

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
Homework	1	50
	Sum (%)	**100**