Course Syllabus

Code - Course Title	**DOT403 - In-Game Technical Art and Optimization**
Course Type	VII. SEMESTER
Laboratory + Practice	2+1
ECTS	**4.0**
Language of Instruction	Türkçe
Course Type	Required Courses

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		Definition of technical art and its role in the industry	
Week - 2		Shader structures and basics of optimization	
Week - 3		Memory management and asset organization	
Week - 4		LOD structures and culling strategies	
Week - 5		Efficient use of lighting and shadow systems	
Week - 6		Real-time rendering processes	
Week - 7		Texture and material efficiency	
Week - 8		GPU/CPU load and bottleneck analysis	
Week - 9		Examination of profiling tools	
Week - 10		Cross-platform optimization differences	
Week - 11		Coding and blueprint optimizations	
Week - 12		Pipeline arrangement and workflow efficiency	
Week - 13		Performance testing and ımprovement applications	
Week - 14		Final project presentation: technical art report	

Learning Outcomes

#	Learning Outcome
1	Apply technical art processes in game development projects
2	Optimize shader, texture, and animation systems
3	Perform performance analyses using profiling tools
4	Develop optimization strategies for different platforms
5	Make rendering and pipeline processes efficient

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.