Course Syllabus

Code - Course Title	**ANİ336 - 3D Visual Effects Design**
Course Type	VI. SEMESTER
Laboratory + Practice	3+1
ECTS	**4.5**
Language of Instruction	Türkçe
Course Type	Area Elective Courses
Course Instructor(s)	ARAŞ. GÖR. HALİM YENTÜR

Mode of Delivery	Face-to-face (Theoretical Lecture + Computer Lab Practice)
Prerequisites	As this course requires technical problem-solving and systems thinking, an interest in basic mathematical/physical principles and good computer literacy will support the learning process.
Courses Recomended	3D Motion Design
Recommended Resources	Houdini Apprentice (Free Version)SideFX Official Documentation and Learning Paths (sidefx.com/learn)
Work Placement	None

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Intro to VFX & SOPs Review	
Week - 2		The World of Dynamics (DOPs) & Particles (POPs)	
Week - 3		Particle Control: Forces & Collisions	
Week - 4		Rigid Bodies (RBDs): Fracturing Basics	
Week - 5		RBD Interactions: Constraints & Activation	
Week - 6		Volumes & VDBs: Data for FX	
Week - 7		Intro to Pyro FX: Basic Smoke Simulation	
Week - 8		Midterm Project Work / Review	
Week - 9		Intro to FLIP Fluids: Basic Liquid Setup	
Week - 10		Rendering FX & Basic Compositing Logic	
Week - 11		Sample FX Projects & Final Project Planning	
Week - 12		Sample FX Projects & Final Project Planning	
Week - 13		Final Project Development & Optimization	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 14		Final Project Presentations & Evaluation	

Learning Outcomes

#	Learning Outcome
1	Understands Houdini's dynamic context (DOPs) and applies basic visual effects (VFX) workflows.
2	Sets up basic particle simulations (POPs) and controls particle behavior using forces and collisions.
3	Creates rigid body dynamic (RBDs) simulations, utilizing basic geometry fracturing and constraint techniques.
4	Generates and utilizes basic volumes (Volumes/VDBs) for visual effects purposes.
5	Uses the Pyro FX system to create basic smoke effects.
6	Sets up and manages basic fluid simulations (FLIP).
7	Lights, applies materials to, and renders visual effects elements (particles, volumes, rigid bodies) at a fundamental level.
8	Analyzes problems encountered in basic VFX simulations and develops solutions.

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.