Course Syllabus

Code - Course Title	**ANİ333 - 3D Character Animation I**
Course Type	V. SEMESTER
Laboratory + Practice	4+3
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	DOÇENT SABAHATTİN ÇALIŞKAN

Mode of Delivery	The mode of delivery of this course is face to face.
Place of Delivery	On Campus
Used Educational Platforms	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	Body Language: Advanced 3D Character Rigging, Eric Allen, Kelly L. Murdock, Jared Fong; Character Animation Fundamentals,Steve Roberts
Work Placement	N/A
Aims of the Course	Skeletal System: Body bone system; Creating a skeletal system using human anatomy and the bones-joints-limbs-skeleton hierarchy, creating skeleton control systems using constrained and main connection methods from object links, utilizing forward kinematics systems (arm, leg, tail, etc.), utilizing inverse kinematics systems (arm, leg, tail, etc.), examination of character body bone system examples, testing the character body bone system; Facial bone system; Creating the facial bone system, creating the facial control rig, creating facial expressions, examination of character facial bone system examples, testing the character facial bone system; Skinning; Utilizing skinning methods, weight painting, testing the skinning; Animation; Creating poses with characters, simple character movements.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Body Skeletal System	Lecture, Question & Answer, Discussion
Week - 2		Creating skeletal system using bones-joints-limbs-skeleton hierarchy.	Lecture, Question & Answer, Problem Solving
Week - 3		Forward kinematic and inverse kinematic systems.	Lecture, Observation, Question & Answer, Problem Solving
Week - 4		Character body skeletal system samples	Lecture, Question & Answer, Discussion, Problem Solving

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 5		Facial skeletal system.	Lecture, Question & Answer, Discussion, Case Study, Problem Solving
Week - 6		Creation of face control scheme.	Lecture, Observation, Question & Answer, Discussion, Case Study, Problem Solving
Week - 7		Creation of facial mimics.	Lecture, Observation, Question & Answer, Case Study, Problem Solving
Week - 8		Testing the character facial bone system.	Lecture, Observation, Question & Answer, Case Study, Problem Solving
Week - 9		Skinnig.	Lecture, Observation, Question & Answer, Discussion
Week - 10		Using skinning methods.	Lecture, Observation, Question & Answer, Discussion
Week - 11		Skin weight paint.	Lecture, Observation, Question & Answer, Discussion
Week - 12		Creating pose with character.	Lecture, Observation, Case Study, Problem Solving
Week - 13		Motion aesthetics.	Lecture, Observation, Question & Answer, Discussion, Case Study
Week - 14		Simple character movements.	Lecture, Observation, Question & Answer, Discussion, Case Study, Problem Solving

Learning Outcomes

#	Learning Outcome
1	Will be able to explain 3D character animation bone systems.
2	Design the facial skeletal system.
3	Defines skinning methods
4	Design the character moving.

Sustainable Development Goals

✓ Quality Education ✓ Decent Work and Economic Growth

Course Theme

✓ Communication Technologies and the IoT ✓ Media, Design and Creative Arts

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	4.00	4	16
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	5.00	5	25
Ödevler	5.00	5	25
Proje - Rapor - Sunum Hazırlama	2.00	2	4
Ara Sınav Hazırlığı (sınav süresi dahil)	4.00	4	16
Final Sınavı Hazırlığı (sınav süresi dahil)	4.00	4	16
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	7.00	7	49
Staj Uygulaması	0.00	0	0
		Calculated ECTS	**6.0**

Assessment Method and Passing Requirements

✓ Performance Assessment (Individual/Panel-Based) ✓ Self Assessment

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	40
Final Exam	1	60
	Sum (%)	**100**