Course Syllabus

Code - Course Title	**ANİ231 - 3D Modelling**
Course Type	III. SEMESTER
Laboratory + Practice	4+3
ECTS	**7.0**
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.
Work Placement	N/A

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to 3D World & Maya Interface: Coordinate system (X, Y, Z), interface navigation, basic manipulators. Creating project folder and file management. Practice: Retro computer/desk set consisting of 5 different primitive objects.	
Week - 2		Basic Modeling Tools (Extrude & Bevel): Sub-component modes (Vertex, Edge, Face), polygon structure and quad topology. Practice: Wooden chair, detailed desk modeling etc..	
Week - 3		Precision Modeling & Alignment Tools: Snap (Grid, Curve, Point) tools, pivot point control and alignment, Duplicate Special (angular duplication). Practice: Spiral staircase modeling.	
Week - 4		Layers and Scene Organization: Display Layer usage, organizing complex scenes, Boolean operations and geometry cleanup. Practice: Historical palace gate with arched transitions and carved columns.	
Week - 5		Grouping, Hierarchy and Curved Surfaces: Ctrl+G grouping, Parent-Child relationships, controlling curves with holding edges (support edges). Practice: Curved, seamed modern single armchair/sofa.	
Week - 6		Complex Hard-Surface Modeling: Modeling multi-part inorganic structures by working with reference images (Image Plane). Practice: Detailed retro camera, radio etc.	
Week - 7		Midterm Project Submission (Detailed Hard-Surface Modeling Project): A large-scale environment composition or detailed vehicle design involving all inorganic modeling techniques learned since the beginning of the semester.	
Week - 8		Subdivision Surfaces & Semi-Organic Forms: Smoothing logic (Pressing 3), preserving form with edge loops. Practice: Stylized shield, helmet modeling etc.	

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 9		Introduction to Organic Modeling & Character Blocking: Modeling by simplifying stylized animal or creature anatomy. Practice: Stylized animal/creature torso and leg structure.	
Week - 10		Detail Modeling & Character Extremities: Topology of hand, fingers, and joint points, bending (deformation) regions. Practice: Production-ready humanoid hand.	
Week - 11		Character Body Modeling (Advanced): Humanoid/robotic body anatomy, modeling by following reference lines (Silhouette). Practice: Character torso (T-pose/A-pose).	
Week - 12		Head and Face Modeling (Box Modeling Head): Circular edge loops (Loop structure) around eyes, nose, and mouth, connecting head with body. Practice: Head/face suitable for animation and speech.	
Week - 13		This lesson focuses on working on a character's topology and finalizing it for production. It begins with creating the eyes and positioning the pivots for accurate rotation. To achieve this, the lesson starts with setting up a scene in Maya, learning how to clean up geometry, and exploring different smoothing techniques.	
Week - 14		Final Project Submission (Character & Scene Modeling Project): Optimization of scenes (polycount check, deleting history, naming checks) and final project submission presentation.	

Learning Outcomes

#	Learning Outcome
1	Ability to explain 3D modeling methods and basic tools
2	Ability to model character and environment designs based on reference sheets
3	Ability to present modeled characters and scenes in industry standards

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

AKTS Workload

Activity	Duration (Hour)	Count	Workload
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
Homework	1	50
	Sum (%)	**100**