ESOGU Faculty of Art and Design
Industrial Design Department
COURSE INFORMATION FORM

SEMESTER	SPRING

COURSE CODE	1411xxx	COURSE NAME	Advanced Modelling

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	Type	Language
6	2	1	0	3	5	COMPULSORY ( ) ELECTIVE (X)	Turkish

COURSE CATEGORY				
Basic Education	Design	Natural and Applied Science	Social Science	Art
	X			

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	1st Mid-Term	1	30
	2nd Mid-Term		
	Quiz		
	Homework	5	30
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	40

PREREQUIEITE(S)	To have successfully completed Computer Aided Design I and Computer Aided Design II courses
COURSE DESCRIPTION	By designing the products in the industrial design process in electronic environment, it is aimed to transfer the form, texture, color and product-environment relationship, which are the components of the product, in digital environment. The working process, which started in 2 dimensions, is moved to the 3rd dimension, for this purpose, one or two of the 3DS Max, Solidworks, Alias, Vray programs are selected and applications are made specific to the strengths of the programs.
COURSE OBJECTIVES	In addition to providing students with the ability to use computers at the design stage at an advanced level, the primary aim of the course is to assign materials to the products modelled on the computer and render them with the right lighting and obtain photo-realistic images.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUCATION	By transferring the projects which developed on paper to the computer environment, prepares the project for presentation by gaining the ability to test and visualize through digital analysis during the product development process in the digital environment.
COURSE OUTCOMES	- Recognizes the programs to be used in the design process. - Recognizes and uses 3DS Max-Vray menus. - Develops photo-realistic visualization skills.
TEXTBOOK	- Vray manual for 3DS Max
OTHER REFERENCES	- 3DS Max manual for 2022

TOOLS AND EQUIPMENTS REQUIRED	- Desktop or laptop computer, 3DS Max and Vray rendering software

WEEKLY COURSE SYLLABUS	
WEEK	**TOPICS**
1	Introduction and installation of 3D modeling and rendering programs
2	Introducing the interface of the modeling and rendering program, explaining the main titles and menus in the program
3	The concept of materials and the application of materials to products in Vray program
4	Vray light and lighting settings (spotlight, spotlight, etc.)
5	Vray light and lighting settings (spotlight, spotlight, etc.)
6	Vray camera and its settings (Depth of Field, MotionBlur, etc.)
7	Vray camera and its settings (Depth of Field, MotionBlur, etc.)
8	Mid-term
9	Concept of HDR, Scene design in virtual environment
10	Visualization settings
11	Taking images by adjusting the camera and light settings indoors
12	Taking images by adjusting the camera and light settings outdoors
13	Sample application via tutorial
14	Sample application via tutorial
15	Sample application via tutorial
16	Final Exam

NO	**PROGRAM OUTCOMES**	**Contribution Level**		
		3	**2**	**1**
1	Within cultural, historical and artistic context the ability to integrate theoretical knowledge about production and consumption mechanisms into the design practice;			X
2	The ability to plan the design process, to choose and use appropriate methods and techniques;			X
3	The ability to identify design problems and related sub-problems and to produce creative solutions with a critical and dialectical approach;		X	
4	The ability to design in terms of spatial thinking using design principles and elements;	X		
5	The ability to make applications in the interaction of aesthetics and function using design elements and means and to evaluate these applications;	X		
6	The ability to visualize and present using two and three dimensional design tools;	X		
7	The ability to follow and apply technological developments, current design approaches, sustainable production methods, materials and innovations in the field of informatics in design projects;			X
8	The ability to use field knowledge in industrial design projects by considering the needs and interests of the society and target users within the scope of environmental awareness, professional ethics and the laws;			X
9	The ability to carry out the design process effectively individually or in a team;			X
10	The ability to take an active role in discipline-specific or interdisciplinary studies at the national and international levels.		X	
1: None. 2: Partial contribution. 3: Complete contribution.				

Instructor(s): Asst. Prof. Dr. Cemil YAVUZ

Signature: **Date:**