



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

SEMESTER	SPRING
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COURSE CODE	1411xxx	COURSE NAME	Computer Aided Design II
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SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	Type	Language
4	2	1	0	3	5	COMPULSORY (X) ELECTIVE ()	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	6	30
	Project		
	Report		
	Others (.....)		
FINAL EXAM		1	40

PREREQUIEITE(S)	To have successfully completed the Computer Aided Design-I course
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COURSE DESCRIPTION	By designing the products in the industrial design process in electronic environment, it is aimed to transfer the form, texture, colour 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, and for this purpose, applications are made specifically for the Autodesk Fusion 360 program.
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COURSE OBJECTIVES	It is aimed that students will be able to use computers in the design phase and improve their modeling skills in the computer they acquired in the previous period.
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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.
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COURSE OUTCOMES	Can edit files in Autodesk Fusion 360 program. Explains the Autodesk Fusion 360 program's necessary representation tools for project presentation in industrial design. Explains Autodesk Fusion 360's representation tools for two-dimensional (2D) and three-dimensional (3D) drawing.
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TEXTBOOK	- Autodesk Fusion 360 manual
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OTHER REFERENCES	- 3DS Max manual for 2022 - Vray manual for 3DS Max
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TOOLS AND EQUIPMENTS REQUIRED	- Desktop or laptop computer, Autodesk Fusion 360 modeling software
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WEEKLY COURSE SYLLABUS

WEEK	TOPICS
1	Installation, presentation and registration of Autodesk Fusion 360 program to the cloud system
2	Creation of 2D drawings and line associations
3	Transition from 2D to 3D solid modeling: Parametric modeling
4	3D solid modeling (subject and progress tracking)
5	Assembled 3D solid model creation and associating assembly parts
6	T-Splines: Creating 3D models with flexible strips and curves
7	Joint use of solid modeling and T-Splines module
8	Mid-term
9	Advanced T-Splines modeling techniques
10	Advanced T-Splines modeling techniques: Organic surfaces
11	Testing 3D product designs with analysis module and simulations
12	Visualization of 3D models with 3D Rendering and Animation
13	Visualization of 3D models with 3D Rendering and Animation
14	Visualization of 3D models with 3D Rendering and Animation
15	Visualization of 3D models with 3D Rendering and Animation
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: