



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

SEMESTER	FALL
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COURSE CODE	1411xxx	COURSE NAME	Computer Aided Design I
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SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	Type	Language
3	2	1	0	3	5	COMPULSORY (X) ELECTIVE ()	Turkish

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

ASSESSMENT CRITERIA			
MID-TERM	Evaluation Type	Quantity	%
	1st Mid-Term	1	30
	2nd Mid-Term		
	Quiz		
	Homework	6	30
	Project		
	Report		
	Others (.....)		
FINAL EXAM		1	40

PREREQUIEITE(S)	-
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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, for this purpose, one or two of the AutoCAD, 3D Max, Solidworks, Alias, Fusion, Rhinoceros, Keyshot programs are selected and applications are made according to the strengths of the programs.
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COURSE OBJECTIVES	The aim of this course is to provide students with the ability to use computers in the design phase and to support the drawing skills in design tools in the computer environment. With the acquisition of 2 and 3 dimensional design skills, it is aimed to increase the power of 3 dimensional thinking.
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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	<p>Explains general information about drawing programs on computer.</p> <p>Can edit files in Rhinoceros program.</p> <p>Explains the Rhinoceros program's necessary representation tools for project presentation in industrial design.</p> <p>Explains the representation tools of Rhinoceros program for two-dimensional (2D) and three-dimensional (3D) drawing.</p> <p>Explains representation tools for visualization of CAD programs.</p> <p>Explains commands for product drawing in CAD programs.</p>
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	Explains the relationship between programs and file transfer in CAD programs.
TEXTBOOK	- Rhinoceros manual for V.7.
OTHER REFERENCES	- https://www.rhino3d.com/7/new/ - 3DS Max manual for 2022
TOOLS AND EQUIPMENTS REQUIRED	- Desktop or laptop computer, Rhinoceros programme software

WEEKLY COURSE SYLLABUS

WEEK	TOPICS
1	Meeting the students, the installation, introduction and usage areas of the Rhinoceros program.
2	Introducing the interface of the Rhinoceros program, explaining the main titles and menus in the program Editing program settings (Options), transferring mouse and keyboard interaction with the program
3	The concept of materials and the application of materials to products in Vray program
4	Interface/Curve/Line/Polyline/Accurate Coordinates/Precision Modeling/Object Snaps
5	Circle/Arc/Polygons/Filet/Blend/Copy/Rotate/Mirror/Join/Gumball Tutorial/Trim/Split/Offset/Scale
6	Background Bitmap, Contour, Make a Hole, Picture, Shell, Naked edges, Project to Cplane, Edit curve/surface
7	Surface/Polysurface/Sweep1/Sweep2/Loft/Network of Curves/Patch/Surface 3-4 points
8	Midterm Exam
9	Surface/Polysurface/Pull to surface/Text-Surface
10	Drafting/Dimension/Annotation/ Scaling /3 view /Plot (Vectorial output,.AI)
11	Repetitions/Question and Answers (Point, Curve, Surface, etc.)
12	Sample product modeling and Keyshot rendering via Tutorial
13	Sample product modeling and Keyshot rendering via Tutorial
14	Sample product modeling and Keyshot rendering via Tutorial
15	Sample product modeling and Keyshot rendering 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: