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

SEMESTER	Spring

COURSE CODE	1411xx	COURSE NAME	Design and Cognition

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	Type	Language
6	2	0	0	2	3	COMPULSORY ( ) ELECTIVE (X)	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	40
	2nd Mid-Term		
	Quiz		
	Homework		
	Project		
	Report		
	Others (………)		
FINAL EXAM		1	60

PREREQUIEITE(S)	N/A
COURSE DESCRIPTION	This course will focus on the process of industrial design, which is a cognitive action, and covers the topics of finding and solving design problems, the cognitive stages a designer goes through in the design process, and which thinking styles s/he uses.
COURSE OBJECTIVES	This course aims to increase students' cognitive awareness to teach them how to carry out a more conscious design process.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUCATION	This course contributes to the cognitive mastery of the students in the design process.
COURSE OUTCOMES	1. Find a design problem more consciously 2. Consciously use reasoning methods in the design problem-solving process. 3. Use design thinking methods consciously in the design problem-solving process.
TEXTBOOK	N/A
OTHER REFERENCES	1. Cross, N. (2007). *Designerly Ways of Knowing*. Birkhauser. 2. Lawson, B. (2006). *How Designers Think*. Oxford UK: Architectural Press/Elsevier. 3. Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*, New York, Basic Books. 4. Sinnott, J. D. (Ed.). (1989). E*veryday problem solving: Theory and application.* New York: Praeger.

	5. Chan, C. S. (2015). *Style and Creativity in Design*, Springer
	6. Commons, M. L. and Richards F. A. (2003). *Four Postformal Stages*. In J. Demick and C. Andreoletti (Eds.) Handbook of Adult Development. The Springer Series in Adult Development and Aging, Book Section (pp. 199-219). US: Springer.
	7. Commons, M. L., and Ross, S. N. (2008). What postformal thought is, and why it matters. *World Futures*, 64(5-7), 321-329.
TOOLS AND EQUIPMENTS REQUIRED	N/A

WEEKLY COURSE SYLLABUS

WEEK	TOPICS
1	Introduction to the course. Information about the subjects to be covered.
2	What is Cognition? The importance of Cognition in the Design Process
3	The Design Process models
4	Creativity Process models
5	Reasoning and its types
6	Inductive and Deductive reasoning
7	Transductive and Abductive reasoning
8	**Mid-Term**
9	Introduction to types of thinking used in the Design Process
10	Divergent Thinking
11	Convergent Thinking
12	Formal Thinking
13	Relativistic Thinking
14	Dialectical Thinking
15	Reflection in Action
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. Nazife Aslı KAYA ÜÇOK

Signature: **Date:**