

COURSE SYLLABUS									
Course Title	Course Code	Semester	Course H	Course Hour/Week		ECTS			
Designing with Light and Shadow	ARCH 320	Spring (2021-2022)	Theory 2	Practice 2	3	5			
Course Type	Compulsory Courses	Department Elective	Faculty Elective	University Elective	CoHE (YÖK) Compulsory	Other			
			Х						
I evel of Course	Associat (Short	Associate Degree (Short Cycle)		Undergraduate (First Cycle)		e / Doctoral Third Cycle)			
Level of Course			Х						

Language of Instruction	English

Course Instructor(s)	rse Instructor(s) Asst. Prof. Dr. Martina Callegaro Df. Martina Collegaro@arucad.edu.tr				
Course Objectives	This course will enlighten tho foundations of light desig relationship with space). Light design, in this case, is no and not even the design of th relation to human beings.	se innovative elements concerning the methodological on and human factors (physiology, psychology, ot simply referring to the design of the lighting system e lighting product, but the combination of the two in			
Course Learning Outcomes	This course is a combination conventions, and a number of artful manner where energy effect part of the course delivers the can achieve better and meanin application part of it is to con- using the element of light.	on of specific principles, established standards and f aesthetic, cultural, and human factors applied in an fficiency and lighting quality is a concern. The theory e information regarding lighting theory and how we ngful design by light (natural or mechanical) and the ne up with creative and innovative solutions to design			



	The course will give the students the fundamentals about:
	The role of visual perception and the psychology of light
Course Content	The physics of light, terminology, and parameters
	Natural and Artificial Light Planning
	Use of light sources

COURSE OUTLINE/SCHEDULE									
Week	Торіс	Implementation (theory/practice)	Required Reading, Preliminary preparation						
1	Introduction to the course's topic. The role of visual perception. The physics of light.	T-P	No need for preliminary preparation.						
2	History of Lighting Characteristics, Terms, and definitions Physics terminology and parameters	T-P	No need for preliminary preparation.						
3	 The Foundations of Light Planning: Architectural light design history Evolution of artificial light sources from oil lamps to LED Quantitative vs qualitative Light design studies 	T-P	No need for preliminary preparation.						
4	 Artificial light: Light Sources: modern history of lamps Characteristics of contemporary light Sources and type of bulbs 	T-P	No need for preliminary preparation.						
5	Human factors Perception Circadian Lighting Design	T-P	No need for preliminary preparation.						
6	Practical Introduction to Light Design	T-P	J. Myerson, S. Katz - Lamps and Lighting - Conran Design Guides; Springer US (1990)						



7	Mid-term	QUIZ	
8	The planning process Planning elements: Illumination tasks Daylight Artificial light	T-P	No need for preliminary preparation.
9	Lighting principles Ambient illumination Illumination hierarchies Spectral illumination distributions Spatial illumination distributions	T-P	No need for preliminary preparation.
10	Lighting for people	T-P	No need for preliminary preparation.
11	Lighting for architecture	T-P	No need for preliminary preparation.
12	The design process Designing for perception-based lighting concepts	T-P	No need for preliminary preparation.
13	Recording and visualizing lighting Project communication and completion	T-P	No need for preliminary preparation.
14	Final presentation review	Student Presentation	

Required Course Material(s) / Reading(s)/ Text Book(s)	I. Malcolm , (Portfolio skills. Interior design) Lighting for interior design. Laurence King Publishing; 2012
	C. Cuttle, Lighting Design. A Perception-Based Approach. Routledge; 2015
Recommended Course Material(s)/	M. Rossi , Circadian Lighting Design in the LED Era. Springer International Publishing; 2019
Keading(s) /Other	More books and references will be provided during the course.

ASSESSMENT



Learning Activities	NUMBER	WEIGHT in %
Mid-Term	1	30
Quiz	1	10
Assignment	0	
Project	0	
Field Study	0	
Presentation / Seminar	0	
Studio Practice	0	
Other	0	
Contribution of Final Examination/Final Project/ Dissertation to the Final Grade	1	60
TOTAL		100

	CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME LEARNING OUTCOMES							
No	PROGRAMME LEARNING OUTCOMES	Level of Contribution (1- lowest/ 5- highest)						
		1	2	3	4	5		
1	Obtain knowledge of elements of visual and physical language of design, essential design principles, such as form, function, energy, space, nature and society.			x				
2	Understand design concept, its development process and diverse communication and visualization tools, including digital, augmented and virtual realities.		x					
3	Comprehend the history of design and art, their impact on design thinking processes, and the methodologies of design-related research.		x					
4	Explore architecture as a profession, and design process as a holistic system.			x				
5	Produce sketches and technical drawings according to standards and codes and by applying diverse tools.		x					



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6	Develop creativity and personal style in architectural design and communicate design proposals verbally, visually and textually through a range of media to the client.			x		
7	Conduct research systematically and apply research based methods and critical thinking in design process and problem solving.				X	
8	Produce models and conduct cost estimation of architectural design projects, along with the technical documentation for projects realization.			x		
9	Be engaged in continuous self-development, lifelong learning and architecture professional practice development after graduation.		x			
10	Demonstrate mastery of innovative design tools, techniques and concepts in architecture and proficiency in selection and use of relevant design technologies.	x				
11	Operate as reflective practitioner and validate a coherent and critical understanding of the various theoretical, historical, cultural, contextual and ecological dimensions impacting on their practice, and their relationship to the intended audience.	x				
12	Apply a range of professional and self-management skills and demonstrate proficiency in researching, observing, investigating and critically evaluating information and concepts from a wide range of relevant sources.		x			

ECTS / STUDENT WORKLOAD									
ACTIVITIES	NUMBER	UNIT	HOUR	TOTAL (WORKLOAD)					
Course Teaching Hour (X weeks * total course hours)	14	1	4	56					
Preliminary Preparation and self- study	0	0	0	0					
Mid-Term	1	1	15	5					
Quiz	1	1	10	10					
Assignment									
Project									
Field Study									
Presentation / Seminar									
Studio Practice									



Final Examination/ Final Project/ Dissertation	1	1	45	45
Other				
TOTAL WORKLOAD				116
TOTAL WORKLOAD / 25				4,64
ECTS				5

ETHICAL RULES WITH REGARD TO THE COURSE

Plagiarism Disclaimer

Detected and undetected plagiarism is a serious offense at any time and it could have devastating effects on your degree result and future professional lives.

Plagiarism is easy to avoid if you make sure to identify and acknowledge your sources thoroughly and do not copy directly from visual examples, designs, or notes that have in turn been taken word for word from your sources.

ASSESSMENT DETAILS AND EVALUATION CRITERIA:

Final Grades will be determined according to the Course Learning Activities and Final Examination/ Project/ Dissertation Assessment Details as below, and comply with the Education and Examination Regulation set by the University.

PREPARED BY	Asst. Prof. Dr. Martina Callegaro
UPDATED	
APPROVED	