COURSE SYLLABUS						
Course Title	**Course Code**	**Semester**	**Course Hour/Week**		**Credit**	**ECTS**
Design for Healthy Indoor Environment	ARCH 429	Fall 2025-26	**Theory** 3	**Practice** 0	3	5
Course Type	Compulsory Courses	Department Elective	Faculty Elective	University Elective	CoHE (YÖK) Compulsory	Other
		x				
Level of Course	Associate Degree (Short Cycle)		Undergraduate (First Cycle)		Graduate/ Doctoral (Second /Third Cycle)	
			x			

Language of Instruction	English

Course Instructor(s)	Assoc. Prof. Dr. Tarek Abdelsalam	E-mail: tarek.abdelsalam@arucad.edu.tr Office : TI-OFF07
Course Objectives	The course focuses on the building design process required to assure indoor environmental quality (IEQ) and the needs of building occupants to promote their environmental health, work productivity, psychological comfort, aesthetic quality, and satisfaction. The course integrates principles of spatial design to considerations of healthy and sustainable indoor environment in order to create internal spaces that enhance the health and wellbeing of their occupants and align with the international environmental standards. The course focuses on understanding the influencing factors on the indoor environmental quality like the indoor thermal performance, visual performance, air quality, acoustics, lighting and building materials.	

Course Learning Outcomes	**Students will able to:**	**Teaching Methods**	**Evaluation Methods**
	- explain influencing factors of indoor environmental quality; - define Impact of comfortable environment on satisfaction, productivity and health; - investigate space requirements to assure a successful healthy indoor environment. - analyse designs that improve occupants' comfort, satısfactıon and health; - criticise ecologically responsible, environmentally conscious designs; - assess sustainable buildings that minimize the resources consumption. - develop user surveys and in-depth analysıs;	- Direct instruction - discussion - case study - Brain-storming	Mid-term exam Final project Assignments

	- examine environmental data collection and analysis; - establish suggested steps and processes for solving environmental problems.		
Course Content	The content of this course focuses on the principles of designing a healthy building that supports the physical, psychological, and social health and wellbeing of people in buildings and the built environment. It also deals with the approaches of enhancing the indoor environmental quality.		

COURSE OUTLINE/SCHEDULE

Week	**Topic**	**Implementation (theory/practice)**	**Required Reading, Preliminary preparation**
1	Introduction to the course content, and schedule for the semester.	T	No preparation required.
2	Indoor Environmental Quality and its Elements	T	Bergman, David 2012; Sustainable Design: A Critical Guide
3	Thermal Performance of Spaces	T	No preparation required.
4	Indoor Air Quality: its Performance and Components	T	McLean, William 2021. Environmental Design Source Book: Innovative Ideas for a Sustainable Built Environment
5	Acoustics and Visual Performance of Spaces	T	Bergman, David 2012; Sustainable Design: A Critical Guide
6	Impacts of Indoor Environmental Quality on the Building User	T	McLean, William 2021. Environmental Design Source Book: Innovative Ideas for a Sustainable Built Environment
7	Human Wellbeing: Meaning and Implications	T	Kellert, Stephen 2018. Nature By Design: The Practice of Biophilic Design
8	Case Study Analysis & Discussion **+ MIDTERM EXAM**		Preparation required.
9	Human Comfort: Meaning and Implications	T	Bergman, David 2012; Sustainable Design: A Critical Guide
10	The Healthy Building: Components and Design	T	Kellert, Stephen 2018. Nature By Design: The Practice of Biophilic Design
11	Building User Surveys: Satisfaction and Comfort	T	No preparation required.
12	Analysis of Healthy Building Examples	T	McLean, William 2021. Environmental Design Source Book: Innovative Ideas for a Sustainable Built Environment
13	Passive Solutions for Better Thermal Performance	T	McLean, William 2021. Environmental Design Source Book: Innovative Ideas for a Sustainable Built Environment
14	Passive Solutions for Better Air Quality	T	Kellert, Stephen 2018. Nature By Design: The Practice of Biophilic Design
15	Discussions of key topics of the semester and preparation for final	T	Bergman, David 2012; Sustainable Design: A Critical Guide
16	**FINALS EXAM WEEK**	T	Preparation required.

Required Course Material(s) / Reading(s)/ Text Book(s)	1. Bergman, David 2012; Sustainable Design: A Critical Guide; New York; Princeton Architecture Press; 2012. Arucad Library **Call Number: KN1520.B48 2012** 2. McLean, William 2021. Environmental Design Source Book: Innovative Ideas for a Sustainable Built Environment. RIBA Publishing;2021. Arucad Library **Call Number: NA2542.M35 2021** 3. Kellert, Stephen 2018. Nature By Design: The Practice of Biophilic Design, Yale University Press 2018. Arucad Library **Call Number: NA2542.35 K45 2018**
Recommended Course Material(s)/ Reading(s) /Other	

ASSESSMENT		
Learning Activities	NUMBER	WEIGHT in %
Mid-Term Exam	1	30
Quiz	-	-
Assignment	1	20
Project	-	-
Field Study	-	-
Presentation / Seminar	-	-
Other	-	-
Contribution of Final	1	50
TOTAL		100

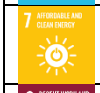
CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME LEARNING OUTCOMES							
No	**PROGRAMME LEARNING OUTCOMES**	Level of Contribution (1-lowest/ 5- highest)				
		1	2	3	4	5
1	Understand architectural history, theory, and cultural heritage, including the relationship between local/vernacular traditions and global architectural discourse.			x		
2	Understand the technical knowledge and the principles of structural systems, building technology, environmental performance, and construction processes as integrated components of architectural design.		x			
3	Comprehend sustainability, ecological sensitivity, and climate-responsive design principles and their application across different scales of the built environment.	X				
4	Recognize the legal, ethical, and professional frameworks governing architectural practice, including relevant codes, standards, universal ethical values, and the principles of project management and cost estimation.				X	
5	Apply creative and critical design thinking to develop holistic architectural solutions that respond to spatial, environmental, cultural, and social challenges at local, national, and global scales.		X			
6	Produce professional drawings, models, technical documentation, and digital/parametric visualizations that effectively communicate architectural proposals at all stages of design.			X		
7	Conduct systematic, evidence-based research and apply critical evaluation methods to inform and validate design decisions throughout the design process.				X	
8	Integrate interdisciplinary knowledge — spanning art, engineering, ecology, and social sciences — to produce innovative and contextually sensitive design outcomes.	X				

9	Demonstrate professional and ethical responsibility, with sensitivity to environmental sustainability, socio-cultural diversity, and the well-being of communities served by architectural practice.					X
10	Collaborate effectively in interdisciplinary and intercultural teams, demonstrating leadership, communication, and project management competencies in design and professional contexts.			X		
11	Communicate architectural ideas persuasively and clearly in verbal, visual, and written form to professional, academic, client, and public audiences.				X	
12	Engage in continuous self-reflection, lifelong learning, and active contribution to the evolving architectural profession at local, regional, and international levels.					X

ECTS / STUDENT WORKLOAD				
ACTIVITIES	**NUMBER**	**UNIT**	**HOUR**	**TOTAL (WORKLOAD)**
Course Teaching Hour (X weeks * total course hours)	15	1	3	45
Preliminary Preparation and self- study	12	1	2	24
Mid-Term	1	1	2	2
Preliminary Preparation and self- study for Mid-Term	1	1	15	15
Quiz				
Assignment	1	1	20	20
Project				
Field Study				
Presentation / Seminar				
Preliminary Preparation and self- study for Final	1	1	15	15
Final Examination/ Final Project/ Dissertation	1	1	4	4
TOTAL WORKLOAD				125
TOTAL WORKLOAD / 25				125/25=5
ECTS				**5**

ETHICAL RULES WITH REGARD TO THE COURSE
Plagiarism Disclaimer Detected and undetected plagiarism is a serious offence 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.

	SDG 1: No Poverty	
	SDG 2: Zero Hunger	
	SDG 3: Good Health and Well-Being	X
	SDG 4: Quality Education	
	SDG 5: Gender Equality	

	SDG 6: Clean Water and Sanitation	X
	SDG 7: Affordable and Clean Energy	X
	SDG 8: Decent Work and Economic Growth	X
	SDG 9: Industry, Innovation and Infrastructure	X
	SDG 10: Reduced Inequalities	
	SDG 11: Sustainable Cities and Communities	X
	SDG 12: Responsible Consumption and Production	X
	SDG 13: Climate Action	X
	SDG 14: Life Below Water	
	SDG 15: Life on Land	X
	SDG 16:Peace, Justice and Strong Institutions	X
	SDG 17:Partnership for the Goals	X

ASSESSMENT DETAILS AND EVALUATION CRITERIA	
Final Grades will be determined according to the Course Learning Activities and Final Project Assessment Details that is handed to students during class hours, and comply by the Education and Examination Regulation set forth by the University. Midterm %30 Assignment %20 Final %50	
PREPARED BY	Assoc. Prof. Dr. Tarek Abdelsalam
UPDATED	September 2025
APPROVED	