School of Fine Arts Design and Architecture / Interior Architecture and Environmental Design

2023 - 2024 Academic Year

ENVIRONMENTAL SYSTEMS: BUILDING DYNAMIC II

Syllabus

Course Description						
Name		**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
ENVIRONMENTAL SYSTEMS: BUILDING DYNAMIC II		ICT3210059	Spring Semester	2+1	2,5	3
Prerequisites Courses	ÇEVRESEL SİSTEMLER: YAPIM DİNAMİĞİ I					
Recommended Elective Courses						
Language of Instruction	Turkish					
Course Level	First Cycle (Bachelor's Degree)					
Course Type	Required					
Course Coordinator	Assist.Prof. Esra BAYIR					
Name of Lecturer(s)	Assist.Prof. Esra BAYIR					
Assistant(s)	R.A Zübeyde Keskin					
Aim	It is aimed to understand the relationship between the building and environmental comfort systems and to convey the subjects related to the natural-mechanical installation/systems necessary to provide the environmental comfort conditions that the users need in the building units.Relationship between design and technology in the context of environmental systems and building installation; the effects of environmental parameters and mechanical installations on design and applications depending on technological developments; its relationship with the building unit; It includes topics such as ventilation, lighting, electricity, fire, acoustics.					
Course Content	This course contains; ,,,,,,,,,,,,.					

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
	12, 18, 2, 6, 9	A, E

Teaching Methods	12: Problem Solving Method, 18: Micro Teaching Technique, 2: Project Based Learning Model, 6: Experiential Learning, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam, E: Homework

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Evaluation Methods	**Weight(%)**
Midterm Exam	50
General Exam	50

Resources

Neufert, E.; (1997), "Yapı Tasarımı Genel Bilgileri", Güven Kitabevi.
Ching, F.D.K., Adams, C.; (2000), "Building Construction Illustrated"; John Willey and Sons.
Wise, A.F.E., Swaffield, J.A.; (2002), "Structures", Prentice Hall.
Allen, E.; (2005), "How Buildings Work", New York, Oxford University Press.
(2001), "Building design and construction handbook", McGraw-Hill Companies, Inc. 6th edition.
Arphan, A.; (1975), "Yapı Tesisatı Bölüm 1", Devlet Güzel Sanatlar Akademisi. "Mimarın Tesisat El Kitabı, Isısan Çalışmaları No:238", Isısan Yayınları.
Küçükçalı, R.; (2008) "Mimarın Tesisat El Kitabı-Cilt 1-2", Isısan Yayınları.
Heerwagen, D., (2004) "Passive and Active Environmental Controls, McGrawHill".
Brown, G.Z., De Kay, M., (2001) "Sun. Wind & Light, Wiley and Sons", New York.
Stein, B., Reynolds, J.S., (2000) "Mechanical and Electrical Equipment for Buildings, John Wiley and Sons, Canada.
Hegger, M., (2008) "Energy Manual Sustainable Architecture, Birkhauser Verlag".
Hawkes, D., Forster, W., (2002) "Energy Efficient Buildings: Architecture", Engineering and Environment, W W. Norton&Company, New York.
Long, M., (2013) "Architectural Acoustics", Academic Press.
Maekawa, Z., Rindel, J.H., Lord, P., (2011) "Environmental and Architectural Acoustics", CRC Press.