

School of Fine Arts Design and Architecture / Architecture (English)

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	ARC3210092	Spring Semester	2+1	2,5	3
Prerequisites Courses	ÇEVRESEL SİSTEMLER: YAPIM DİNAMIĞI I				
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Esra BAYIR				
Name of Lecturer(s)	Assist.Prof. Halit BEYAZTAŞ				
Assistant(s)	Res.Assist. Zübeyde Keskin				
Aim	Relationship between design and technology in the context of environmental systems and building installations; environmental parameters and the effects of mechanical installations on design and applications depending on technological developments; relationship with the building unit; It includes building systems such as ventilation, lighting, electricity, fire, acoustics.It is aimed to understand the relationship between building and environmental comfort systems and to convey the subjects related to the natural-mechanical systems necessary to provide the environmental comfort conditions that users need in the building units.				
Course Content	This course contains; The aim of the course, its scope and mode of conduct, introduction to the course and general concepts - Introduction to HVAC,Heating-Ventilating-Air Conditioning (HVAC) Systems - Ventilating Systems,Heating-Ventilating-Air Conditioning (HVAC) Systems - Air Conditioning Systems,Heating-Ventilating-Air Conditioning (HVAC) Systems - Equipments,Lighting Systems - Natural Lighting,Lighting Systems - Artificial Lighting,Lighting Systems - Lamps,Midterm Exam,Electrical Installation - Building Installation,Electrical Installation - Equipments,Fire Installation,Acoustics - Sound,Acoustics - Architectural Acoustics - Sound Insulation,General Overview.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Relationship between design and technology in the context of environmental systems and building installations; environmental parameters and the effects of mechanical installations on design and applications depending on technological developments; relationship with the building unit; It includes building systems such as HVAC, lighting, electricity, fire, acoustics.It is aimed to understand the relationship between building and environmental comfort systems and to convey the subjects related to the natural-mechanical systems necessary to provide the environmental comfort conditions that users need in the building units.			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	The aim of the course, its scope and mode of conduct, introduction to the course and general concepts - Introduction to HVAC				
2	Heating-Ventilating-Air Conditioning (HVAC) Systems - Ventilating Systems				
3	Heating-Ventilating-Air Conditioning (HVAC) Systems - Air Conditioning Systems				
4	Heating-Ventilating-Air Conditioning (HVAC) Systems - Equipments				
5	Lighting Systems - Natural Lighting				
6	Lighting Systems - Artificial Lighting				
7	Lighting Systems - Lamps				
8	Midterm Exam				
9	Electrical Installation - Building Installation				
10	Electrical Installation - Equipments				
11	Fire Installation				
12	Acoustics - Sound				
13	Acoustics - Architectural Acoustics - Sound Insulation				
14	General Overview				
Evaluation Methods		Weight(%)			
Midterm Exam		50			
General Exam		50			

Resources