TOROS ÜNİVERSİTESİ

Faculty Of Fıne Arts, Desıgn And Archıtecture
Archıtecture

Course Information

BALANCED ARCHITECTURE WITH CLIMATE					
Code	**Semester**	**Theoretical**	**Practice**	**National Credit**	**ECTS Credit**
		Hour / Week			
ARC442	Spring	3	0	3	3

Prerequisites and co-requisites	NONE
Language of instruction	Turkish
Type	Elective
Level of Course	Bachelor's
Lecturer	Prof. Dr. Necati ŞEN
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	To convey the necessary information to enable the student to correctly determine the climate and balanced architectural criteria in different climate regions.
Contents of the Course	Climate factors, Climate data. Counting characteristics of climate data, meteorological measurements, natural climate classification. Climate-Structure-Energy Consumption relations. Information about Improved Methods on the Use of Climate Factor in the Design of a Living Building

Learning Outcomes of Course

#	Learning Outcomes
1	to understand climate and architecture relation.
2	to gain the ability to make balanced architectural design with climate.
3	To decide correct design principles for building design in different climate types
4	To understand the basic principles in the design of environmental systems and to protect artificial resources in sustainable architecture and urban design decisions and to create healthy buildings and settlements.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Climate factors: climate data: temperature, relative humidity, wind, solar radiation, precipitation.	Lecture
2	Counting characteristics of climate data, meteorological measurements, natural climate classification. Climate regions of Turkey.	Lecture
3	Climate-Structure-Energy Consumption relation.	Lecture
4	Local climate variables, climate analysis.	Lecture
5	Balanced architectural design with climate.	Lecture
6	Solar radiation / structure relation.	Lecture
7	Sunlight, shading and sun protection, shadow analysis.	Lecture
8	MIDTERM EXAM	
9	Formation of settlement texture, positioning of structures depending on climate types.	Lecture
10	Climate - structure interaction.	Lecture

11	An Improved Method on the Use of Climate Factor in the Design of a Living Building.	Lecture
12	Application of the for the method on an example study.	Lecture
13	Application of the for the method on an example study.	Lecture
14	Application of the for the method on an example study.	Lecture
15	The general subject is re-preparation for the finals.	Lecture
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	B. Givoni “Man Climate and Architecture” Applied Science Publishers Ltd. London, 1976.		
2	M.Evans “Housing, Climate and Confort” The Architectural Press Ltd., London, 1980.		
3	Matus V., “Design for Northern Climates”, Van Nostand Reinhold Company. Egan M.D.,”Concepts in Thermal Comfort”, Prentice-Hall, 1975.		
4	Watson D., Kennet L., “Climatic Building Design”, Mc Graw, Hill Book Com., 1983.		
5	Egan M.D.,”Concepts in Thermal Comfort”, Prentice-Hall, 1975.		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	to understand climate and architecture relation.	4,11	1,2
2	to gain the ability to make balanced architectural design with climate.	2	1,2
3	To decide correct design principles for building design in different climate types	3,11	1,2
4	To understand the basic principles in the design of environmental systems and to protect artificial resources in sustainable architecture and urban design decisions and to create healthy buildings and settlements.	2	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	2	28
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	1	1
8	Midterm Exam	1	2	2
9	Quiz	0	0	0
10	Homework	2	7	14

11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	1	1
16	Final Exam	1	2	2
				90