

TOROS ÜNİVERSİTESİ

Faculty Of Fine Arts, Design And Architecture
Architecture

Course Information

EARTHQUAKE RESISTANT DESIGN					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
ARC438	Spring	3	0	3	3

Prerequisites and co-requisites	None
Language of instruction	Turkish
Type	Elective
Level of Course	Bachelor's
Lecturer	Asst. Prof. Fikret Okutucu
Mode of Delivery	Face to Face
Suggested Subject	None
Professional practise (internship)	None
Objectives of the Course	Convey the information and experiences that the buildings might be safer during an earthquake through architectural design/form itself.
Contents of the Course	What is an earthquake, Definition of Regulations on the Buildings in Disaster Areas, Concepts of Ordered Structure and Disordered Structure, Irregularities in Plan and Intersection Planes, Performances of Ordered Geometric Forms During an Earthquake, Benefits and Development Details of Earthquake Dilatations, Determination of Causes of Damages in Buildings damaged in an Earthquake through Examples, Acquisition of Earthquake-Proof Buildings through the Support of Technology-Definition of related Technologies

Learning Outcomes of Course

#	Learning Outcomes
1	Able to break down concepts of 'Earthquake resistant design ' and their extensions.
2	Able to interpret 'Earthquake and Design ' in terms of experiential dealings
3	Ability for the self improvement about 'Earthquake resistant design
4	Ability for assessment of earthquake regulations

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Contents and Objectives, What is an Earthquake, Evaluation of the Forms/Designs of Buildings Damaged in Large Earthquakes in Turkey and in the World.	Lecture and Presentation
2	Definition of the Philosophy of Regulations on Buildings on Disaster Areas and Expression of Sections associated with the Architectural Design through Shapes and Examples.	Lecture and Presentation
3	Expression of the Regulation on Buildings in Disaster Areas, Ordered-Disordered Structures, Irregularities in Plan/Intersection, Significance Coefficients of Buildings through Examples.	Lecture and Presentation
4	Determination by the Students of the Causes of Damages in Buildings damaged in an Earthquake/Methods of Preventing the Development of Damage.	Lecture and Presentation
5	Comparison of In-Situ Systems and Prefabricated Systems in terms of Earthquake Safety-Examination of the Support of	Lecture and

	Technology in this Respect.	Presentation
6	Definition of Earthquake Isolators and Posttensioned-Ala-Sawa Construction Technology.	Lecture and Presentation
7	Review of the Knowledge of Students on the Issue under the Question titled "What did we Learn in this Course?" and Preparations to the Mid-term Exam.	Lecture and Presentation
8	Mid-term Exam.	
9	Review of Answers to Mid-term Exam Questions. Introduction of Project/Assay.	Lecture and Presentation
10	Reconsideration of the Architectural Designs of Students performed in Previous Semester through their Knowledge in terms of Earthquake-proof Building Designs-Designing-Arranging the Same or Performing a New Issue Selected through Workshop Study through the Principles of Earthquake-Proof Design.	Lecture and Presentation
11	Continuation of the Issue Studied in Week 10.	Lecture and Presentation
12	Continuation of the Issue Studied in Week 10.	Lecture and Presentation
13	Continuation of the Issue Studied in Week 10.	Lecture and Presentation
14	Delivering the Issue started in Week 10 in the format of Project/Assay consisting of the Preface, Report, Plan, Intersection, Two Details.	Lecture and Presentation
15	Semester Revision	Lecture and Presentation
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Semih S. Tezcan (2004). Bir Mimarın Seyir Defteri, E. Erman (2002).		
2	Deprem Bilgisi ve Deprem Güvenli Mimari Tasarımı. ODTÜ Mimarlık Fakültesi. 975-429-197-7		
3	Internet bazlı kaynaklar		

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	Able to break down concepts of 'Earthquake resistant design ' and their extensions.	10,12	
2	Able to interpret 'Earthquake and Design ' in terms of experiential dealings	10,12	
3	Ability for the self improvement about 'Earthquake resistant design	10,12	
4	Ability for assessment of earthquake regulations	10,12	

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	1	14

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	0	0	0
8	Midterm Exam	1	2	2
9	Quiz	0	0	0
10	Homework	3	10	30
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	0	0	0
16	Final Exam	1	2	2
				90