

TOROS ÜNİVERSİTESİ

Faculty Of Fine Arts, Design And Architecture
Architecture

Course Information

STRUCTURE I

STRUCTURE I					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
ARC237	Fall	2	0	2	3

Prerequisites and co-requisites	NONE
Language of instruction	Turkish
Type	Required
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	Makes architectural students to gain ability of understand changes in existing buildings with the frame of basic content and structural design principles.It contributes developing creative ideas during 3d , spatial design prrocess of design project of by understanding contents,abilities and extends of structure basicly.In addition by anaylses of successful buildings about structure systems provides students to gain ability of making synthesis and analysis.
Contents of the Course	In the content of course , weekly lectures will explained to students by power point presenttaions and technical drawings.It is expected from students to make given building models and presentations about given subjects on time.Models that are especially given for developing skills on 3d design,must be studied and developed by students.

Learning Outcomes of Course

#	Learning Outcomes
1	Designing; buildings structural systems,exterior shell designs,security systems, service shells and can adapt these designs to their architectural design projects
2	Ability to integrate building structure, building shell systems, security, building service systems and design in building design
3	Will be able to understand of production, construction and usage of building materials and components with their standarts and usage principles.
4	Will be able to understand the principles and standards related to the use and applications of building materials and components.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Introduction to course. Lecture1 : Construction methods in buildings. 'Concrete and Masonry' techniques.	Homework1:Investigation of concrete and masonry systems
2	Lecture2: 'Skeleton construction' systems in architecture.	Homework 2:Model making: Domino house,VillaSavoye,Farnsworth house
3	Lecture2: Examples about 'Skeleton construction' systems in architecture.	
4	Lecture3: 'Steel constructions' in architecture.	
5	Lecture3: Explanations about the examples of 'Steel constructions' in architecture.	
6	Lecture4: 'Space frame' systems in architecture.	Homework 3:Making model of spatial frame, scale: 1/1

7	Lecture4: Examples about 'Space frame' systems in architecture.	Homework 3:Making model of spatial frame, scale: 1/1
8	Mid-term exam	
9	(1)Space frame systems , (2)Lecture 5: Introducing ; 'cable, shell, membrane' systems	Homework 4: Investigation cable,shell,membrane systems
10	(1)Space frame systems , (2)Lecture 5: Introducing ; 'cable, shell, membrane' systems	Homework 4: Investigation cable,shell,membrane systems
11	Critics to students presentations on 'cable,shell,membrane' structures.	
12	Critics to students presentations on 'cable,shell,membrane' structures.	
13	Lecture 6:(1)Introducing , 'Form and vector active' systems ,(2) Cable structures	Homework5:Preparing model of structure system scale:1/50
14	Lecture7: 'Tent and membrane' structures	Working on structure model
15	Lecture8: 'Arch and curved' structure systems.	
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Gerçek C., 'Yapıda Taşıyıcı Sistemler'		
2	Ching F. D.K., ' Çizimlerle Bina Yapım Rehberi '		
3	Engel H., 'Structure Systems'		
4	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	Designing; buildings structural systems,exterior shell designs,security systems, service shells and can adapt these designs to their architectural design projects	10,14	1,2
2	Ability to integrate building structure, building shell systems, security, building service systems and design in building design	10,14	1,2
3	Will be able to understand of production, construction and usage of building materials and components with their standarts and usage principles.	10	1,2
4	Will be able to understand the principles and standards related to the use and applications of building materials and components.	10	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	2	28
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	2	4	8
7	Preparation for Midterm Exam	1	3	3
8	Midterm Exam	1	2	2
9	Quiz	0	0	0
10	Homework	2	2	4
11	Midterm Project	0	0	0
12	Midterm Exercise	2	3	6
13	Final Project	1	5	5
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	5	5
16	Final Exam	1	1	1
				90