

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

2023 - 2024 Academic Year

STRUCTURE II

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
STRUCTURE II	ARC2140830	Fall Semester	2+2	3	3
Prerequisites Courses	STRÜKTÜR I				
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Tahir AKKOYUNLU				
Name of Lecturer(s)	Assist.Prof. Ahmet TUZ				
Assistant(s)					
Aim	1. Develops structural design logic.2. Defines structural design parameters. 3. Develops structural innovation skills.				
Course Content	This course contains; Introduction & syllabus ,Design Principles of Reinforcement Concrete,Design Principles of Reinforcement Concrete,Formwork Drafting Principles,Concept of Neutral Axis ,Dimensioning of a Reinforcement Beam & Reinforcement Computation 1,Midterm,Dimensioning of a Reinforcement Beam & Reinforcement Computation 2,Steel Frameworks 1,Steel Frameworks 2,Principles of Masonry Structures 1,Principles of Masonry Structures 2,Principles of Earthquake Design 1,Principles of Earthquake Design 2.				
Course Learning Outcomes		Teaching Methods	Assessment Methods		
1. Develops structural design logic.		12, 2, 6, 9	A, E, F		
2. Defines structural design parameters.		12, 2, 6, 9	A, E, F		
3. Develops structural innovation skills.		12, 2, 6, 9	A, E, F		
Teaching Methods	12: Problem Solving Method, 2: Project Based Learning Model, 6: Experiential Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, E: Homework, F: Project Task				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Introduction & syllabus				
2	Design Principles of Reinforcement Concrete				
3	Design Principles of Reinforcement Concrete				
4	Formwork Drafting Principles				
5	Concept of Neutral Axis				
6	Dimensioning of a Reinforcement Beam & Reinforcement Computation 1				
7	Midterm				
8	Dimensioning of a Reinforcement Beam & Reinforcement Computation 2				
9	Steel Frameworks 1				
10	Steel Frameworks 2				
11	Principles of Masonry Structures 1				
12	Principles of Masonry Structures 2				
13	Principles of Earthquake Design 1				
14	Principles of Earthquake Design 2				
Evaluation Methods		Weight(%)			
Midterm Exam		50			
General Exam		50			

Resources	
1.	Students shall take notes during lectures.1. Why Buildings Stand up? Mario Salvadori
2.	Statics and Strength of Materials for Architecture and Building Construction, Barry Onouye, Kevin Kane
3.	Principles of Structures, Ariel Hanaor