

Vocational School / Architectural Restoration
2024 - 2025 Academic Year
STRUCTURAL ISSUES in HISTORICAL BUILDINGS
Syllabus

Course Description						
Name	Code	Semester	T+A Hour	Credit	ECTS	
STRUCTURAL ISSUES in HISTORICAL BUILDINGS		MRS2245440	Spring Semester	2+0	2	5
Prerequisites Courses						
Recommended Elective Courses						
Language of Instruction	Turkish					
Course Level	Short Cycle (Associate's Degree)					
Course Type	Elective					
Course Coordinator	Assist.Prof. Hande YILMAZ					
Name of Lecturer(s)	Lect. Sevgi SIRMA					
Assistant(s)	Öğr. Gör. Sevgi Sirma					
Aim	Traditional structural systems, techniques and materials used in historic buildings; The relationship between these techniques and the defined architectural period and stillness; Types and causes of structural deterioration; Techniques and methods for determining structural deterioration; The methods used in solving and improving the problems of structural systems are covered in this course.					
Course Content	This course contains; Introduction, Explanation of Course Introduction and Purpose, Explanation of Success Conditions.,Introduction, concept of structure and material.,Materials and Properties Used in Traditional Buildings.,Structural elements in masonry; Linear elements (columns, feet, walls, etc.), curvilinear elements (arches, vaults, domes),.Technical land tour.,Structural imbalances, material deterioration.,Damage Detection Methods.,Structural strengthening techniques in masonry structures.,Technical land tour.,Material-soil-structure degradation analysis.,Methods used in the improvement of structural distortion.,Structural failure analysis and restoration techniques.,Structural failure analysis and restoration techniques.,Technical land tour..					
Course Learning Outcomes			Teaching Methods	Assessment Methods		
1. Traditional structural systems, techniques and materials used in historical buildings will have knowledge and insight into matters related to them.			10, 12, 13, 14, 16, 19, 4, 8, 9	A, D, E		
2. Types and causes of structural deterioration; Will have advanced knowledge and understanding of techniques and methods for determining structural deterioration.			10, 12, 13, 14, 16, 19, 8, 9	A, D, E		
3. It will acquire the necessary cognitive and practical knowledge for the methods used in solving and improving the problems of structural systems.			10, 12, 13, 14, 16, 18, 19, 5, 9	A, D, E		
Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 13: Case Study Method, 14: Self Study Method, 16: Question - Answer Technique, 18: Micro Teaching Technique, 19: Brainstorming Technique, 4: Inquiry-Based Learning, 5: Cooperative Learning, 8: Flipped Classroom Learning, 9: Lecture Method					
Assessment Methods	A: Traditional Written Exam, D: Oral Exam, E: Homework					
Lecture Schedule						
Sequence	Topics	Preliminary Preparation				
1	Introduction, Explanation of Course Introduction and Purpose, Explanation of Success Conditions.					
2	Introduction, concept of structure and material.					
3	Materials and Properties Used in Traditional Buildings.					
4	Structural elements in masonry; Linear elements (columns, feet, walls, etc.), curvilinear elements (arches, vaults, domes).					
5	Technical land tour.					
6	Structural imbalances, material deterioration.					
7	Damage Detection Methods.					
8	Structural strengthening techniques in masonry structures.					
9	Technical land tour.					
10	Material-soil-structure degradation analysis.					
11	Methods used in the improvement of structural distortion.					
12	Structural failure analysis and restoration techniques.					
13	Structural failure analysis and restoration techniques.					
14	Technical land tour.					
Evaluation Methods		Weight(%)				
Midterm Exam		40				
General Exam		60				

Resources	
Course Contents	