Marmara University Faculty of Architecture
School of Architecture and Design
2021-2022 Fall Semester

Course Title	**Code**	**Semester**	**Hour (T+P)**	**Credit**	**ECTS**
Material and Technology I	ARCH206	Fall	2+2	3	4
Prerequisities	-				
Language of Instruction	English				
Course Type (Required / elective)	Required				
Course Coordinator	-				
Instructor /e-mail	Lecturer Enise Yasemin Gökyiğit Arpacı yasemingokyigit@gmail.com				
Assistans	-				

Goals	Gaining familiarity with building elements and building materials. To understand the point that they have reached in today's technology in relation to their historical process. Doing exercises and research about elements such as foundation, wall, floor, roof, etc., and materials such as stone, brick, mud brick, glass, steel, reinforced concrete, etc.	
Learning Outcomes	The students who have succeeded in this course; 1. Understand and define the general structural systems of buildings 2. Gain the knowledge of structural components. 3. Learn the principles of structural components such as foundations, walls, floors and roofs. 4. Gain the skill of examining and decision making of components.	
Course Content	-Introduction to building structures and building technology -Conceptual approaches of standing on top of each other, covering and shelter, tension, etc. -Introduction to the building components (foundations, walls, slabs etc.) -Modelling and Technical drawing principles in 1/20 scale.	
Assessment Criteria	**Assessment Components**	
	Weekly Studies	%20
	Mid-term	%40
	Final Exam	%40
	TOTAL	%100
Midterm grade: 50 **Final grade: 50** **Course success: 50**		

WEEKLY TOPICS AND PREPARATIONS		
Weeks	**Topics**	**Initial Studies**
Week 1	Definitions + Construction Systems + Soil + Application + Support Units	Structure Model
Week 2	Foundation Insulation	Assignment 1
Week 3	Assignment 1: Foundation Insulation 1/20	Foundation Model
Week 4	R.C. Floorings	Assignment 2
Week 5	Assignment 2: Flooring 1/20	Flooring Model
Week 6	Walls (Earth, Brick, Stone, Concrete) + Wall Insulation	Assignment 3
Week 7	Assignment 3: Walls 1/20	Wall Model
Week 8	MIDTERM	

Week 9	Introduction to Stairs + Calculations	Assignment 4
Week 10	Assignment 4: Stair Plans 1/20	Stair Model
Week 11	Stair with different materials and construction techniques (brick, stone, concrete, r.c)	Assignment 5
Week 12	Assignment 5: Stair Section 1/20	Stair Model
Week 13	Introduction to Roofs + R.C. Flat Roofs	Assignment 6
Week 14	Assignment 6: R.C. Flat Roof	Roof Model
Week 15	Model Submissions	

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ECTS / WORKING HOUR TABLE

Activities	**Number of Weeks**	**Duration (Hour)**	**Working Hours**
Duration of the Course (Including Exams: 14 x Total Weekly Course Hour)	16	4	64
Extracurricular Working Hour (Preparatory Work, Review,Internet studies etc.)	15	2	30

Midterm exam	1	4	4
Homeworks and Presentations	7	4	28
Final Exam	1	4	4
Working Hours in Total			130
Working Hours in Total / 30			4,3
ECTS Credit of the Course			4