

**ARCH 210 STRUCTURE II**  
**MARMARA UNIVERSITY**  
**SCHOOL OF ARCHITECTURE AND DESIGN**  
**2022-2023 / SPRING Semester**  
**SYLLABUS**

Course Title	Code	Semester	Hour (T+P)	Credit	ECTS
Structure II	Arch 210	Spring	2+0	2	2
<b>Prerequisites</b>	Arch 209				
<b>Language of Instruction</b>	English				
<b>Course Type (Required /elective)</b>	Required				
<b>Course Coordinator</b>	Yonca Yaşayanlar				
<b>Instructor /e-mail</b>	yoncayasayanlar@gmail.com				
<b>Assistants</b>	-				
<b>Goals</b>	It is aimed to give information about structural systems and structural system alternatives to architectural students during the design phase. Within the scope of the course, it is planned to show the effects of loads on structure design and structure design examples for different material alternatives.				
<b>Learning Outcomes</b>	1-Demonstrate the effects of loads on the structural designing stage 2-Presenting design criteria 3- To show structure design examples for different material alternatives 4-To introduce structural systems				
<b>Course Content</b>	Interaction between structural systems and design criteria.				
<b>Assessment Criteria</b>	<b>Assessment Components</b>	No component may have more than 50% weight			
	<b>Attendance and Contributions</b>	% 10			
	<b>Midterm Exam</b>	% 40			
	<b>Final Exam</b>	%50			
	<b>TOTAL</b>	%100			

**COURSE TOPICS**

Introduction to the Course  
Concepts of Equilibrium, Stability, Serviceability and Safety  
Types of Structures: Beams, Trusses, Frames, Shear-Walls, Arches  
General Principles of Reinforced Concrete Structures  
Loads on Structures  
Structural Elements and Building Code Requirements

**TEXTBOOK**

- Turkish Building Earthquake Code 2018 (Türkiye Bina Deprem Yönetmeliği - TBDY 2018)
- R. C. Hibbeler. Structural Analysis, 8<sup>th</sup> Edition
- Silver, P., McLean, W. ve Evans, P., 2013. Structural Engineering for Architects: A Handbook,

Laurence King Publishing Ltd

- Francis D. K. Ching. Building Structures Illustrated Patterns, Systems, and Design, Wiley (2013)
- "Structures in Architecture II" Course Notes, Assist.Prof. Dr.Selçuk SAATCI