

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

Course Title	Code	Semester	Hour (T+P)	Credit	ECTS
Detail and Design	ARCH 403	7	2+0	2	10
Prerequisites	-				
Language of Instruction	English				
Course Type (Required / elective)	Required				
Course Coordinator	Işıl Önder				
Instructor /e-mail	isil.turkey.onder@gmail.com				
Assistants	-				
Goals	Understanding of architectural details, viewing them within part-to-whole relationship with the building, understanding their visual and functional contribution to the building and perceiving the detailing process as the smallest unit of design “codes” of buildings.				
Learning Outcomes	<ul style="list-style-type: none"> · Use basic design principles of building elements, building physics and construction methodically in order to analyze buildings in general and in detail and to describe this visually and orally. · Analysis of building details with performance approach and systems thinking. · Produce a report. 				
Course Content	<p>To understand, apply and synthesize basic knowledge of use of materials, building techniques, construction, building physics and climate by focusing on tectonic design of building parts and given conditions:</p> <ul style="list-style-type: none"> ▪ Architectural technology terminology and detailing approaches ▪ Analysis of building and building elements with systems thinking, understanding the effects of construction methods and material use ▪ Interaction user-environment/location-building systems ▪ Design principles and performance requirements of building elements 				
Assessment Criteria	Assessment Components				
	Weekly Studies			30%	
	Mid-term			20%	
	Final Exam			50%	
	TOTAL			100%	
Midterm grade:					
Final grade:					
Course success:					

WEEKLY TOPICS AND PREPARATIONS	
Weeks	Topics
Week 1	Lecture – Introduction: terminology, concepts
Week 2	Lecture – Building elements and architectural detailing
Week 3	Lecture – Architectural detailing and performance

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Week 4	Lecture – Building level analysis, Structural system level analysis, Typical area detail analysis – layers, components, materials, constructability
Week 5	Student presentations – typical area detail analysis: layers, components, materials, constructability
Week 6	Student presentations – typical area detail analysis: layers, components, materials, constructability
Week 7	Student presentations – typical area detail analysis: layers, components, materials, constructability
Week 8	mid-term
Week 9	Lecture – Architectural detailing and approaches
Week 10	Student presentations – Architects and projects
Week 11	Student presentations – Architects and projects
Week 12	Lecture – Typical area detail analysis – performance, aesthetics-construction-performance interaction, environmental effects
Week 13	Student presentations – typical area detail analysis: performance, aesthetics, environmental effects
Week 14	Student presentations – typical area detail analysis: performance, aesthetics, environmental effects
Week 15	Student presentations – typical area detail analysis: performance, aesthetics, environmental effects

REFERENCES

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- Dickinson, D. (1997). *Expressive details: materials, selection, use*. New York: McGraw-Hill.
- Emmitt, S., Olie, J. and Schmid, P. (2004). *Principles of architectural detailing*. Oxford, UK; Malden, MA: Blackwell Pub.
- Ford, E. (2011). *The architectural detail*. New York: Princeton Architectural Press.
- Herrmann, E.M., Krammer, M., Sturm, J., & Wartzek, S. (2015). *Enclose-build: The building envelope - facade, wall, roof*. Basel: Birkhäuser Verlag.
- Leatherbarrow, D. & Mostafavi, M. (2002). *Surface architecture*. Cambridge: MIT Press.
- Meijs, M. & Knaack, U. (2009). *Principles of construction: components and connections*. Berlin: Birkhäuser Verlag.
- Moro, J. L., Rottner, M., Alihodzic, B. & Weissbach, M. (2009). *Baukonstruktion vom Prinzip zum Detail, Band 2*. Berlin: Springer-Verlag.
- Moussavi, F. (2009). *The function of form*. NY: Actar and Harvard Graduate School of Design.
- Rush, Richard D. (1986). *The building systems integration handbook*. New York: John Wiley & Sons, Inc.
- Schittich, C. (2006). *In Detail: Building Skins*. Basel: Birkhäuser Verlag.
- Watts, A. (ed.) (2011). *Modern Construction Envelopes*. Wien: Springer-Verlag.

ECTS / WORKING HOUR TABLE

Activities	Number of Weeks	Duration (Hour)	Working Hours
Duration of the Course			

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(Including Exams: 14 x Total Weekly Course Hour)			
Extracurricular Working Hour (Preparatory Work, Review,Internet studies etc.)			
Midterm exam			
Homeworks and Presentations			
Final Exam			
Working Hours in Total			
Working Hours in Total / 30			
ECTS Credit of the Course			