

DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

Course Code	Course Name	Year/Semester	Theory	Practice	Credits	ECTS
IAED 1502	Material and Construction Technologies in Interior Space I	2023/2024 Spring	1	2	2	3

**Level of Course:** Undergraduate

**Course Type:** Core Course

**Language of**

**Instruction:** English

**Course time:** 13.30-16.30 – Thursday

**Course classroom:** BB-24 & BB-25

**Mode of Delivery:** Class teaching, presentation, drawing assignments

**Prerequisites and** Prerequisites: None

**Co-requisites:** Co-requisites: IAED 2503

**Course Coordinator:** Lec. Dr. Arzu Çakmak

**Name of Lecturer(s):** Lec. Dr. Arzu Çakmak

**Course Teaching** Lec. Canan Bedur

**Assistant:** Rumeysa Nur Altun

**Course Objectives:** The aim of the introductory module is providing students with an early knowledge of materials and construction elements, in order to easily enhance a more detailed study in the next module.

To introduce basic materials used in construction, basic components of a building and method of construction and representation of the same.

**Course Description:** This course directs the first of two modules that introduces structural components and materials. Students are expected to be familiarized with technical and technological sides of a construction phase. The course focuses on the main components of a building, its functions and technological requirements. Weekly class activities are scheduled as a complementary evaluation.

**Learning Outcomes:** Upon successful completion of the course, students will be able to:

To learn the basic technical vocabulary requested in the construction field

To understand the differences between the main structural concepts and their evolution to more complex contemporary structural layouts

To explain the field of use of the most common building materials

To recognize the place specific building tradition and the determinants for its development

To identify the main steps in the pre-industrial and post-industrial manufacturing of building materials, and the differences in the resulting performances

To distinguish the main components of a building, intended as a system of interconnected elements

To clearly identify the steps of the building process, from the predesign to the dismantlement.

**Language:** The classes and discussions will be in English. Developing your verbal language skills will

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be very important in acquiring the disciplinary terminology as well as daily communication at the class.

- Text Books:**
- Merritt, F., S., Ricketts, J., T., 2000, *Building Design And Construction Handbook*, Sixth Edition McGRAW-HILL.
  - Greeno, R., Chudley, R., 2014, *Building Construction Handbook, 10<sup>th</sup> Ed.*, Routledge.
  - Meta, M. ; Scarborough, W.; Arm Priest, D., 2009, *Building Construction: Principles Materials and Systems, 2<sup>nd</sup> Ed.*, Pearson.
  - Bindra, S.P. and Arora, S.P. *Building Construction: Planning Techniques and methods of Construction*,
  - Moxley, R. Mitchell' s, *Elementary Building Construction*.
  - Rangwala, S.C., *Building Construction*
  - Sushil Kumar, T.B. of *Building Construction*

**Recommended Text Books:**

- Foster, J.S.; Greeno, R., 2007, *Structure and Fabric*, part 1; 7<sup>th</sup> Ed.Pearson
- Allen,E., 2005, *How Buildings Work, the natural order of Architecture*, 3<sup>rd</sup> Ed., Oxford University Press
- Szokolay , S., *Introduction to Architectural Science, the basis of sustainable design*, Architectural Press
- Salvadori, M. *Why buildings stand up. The strength of architecture*,W.W. Norton&Company, London, NY

**Planned Learning Activities and Teaching Method:** The expected learning outcomes for the course will be assessed through: Presentations, drawing assignments, midterm exam and final submission.

**Class Participation:** Regular attendance of all enrolled classes is expected. Do not be late to the class. **Attendance will be taken through your signature within the first quarter of the class; if you come later you will be considered half-attended.** At the end of the Semester, your attendance will be reported on **UBS** system. Attendance is compulsory and in case of absenteeism of more than than **20% for the practice and %30 for the theory**, the system will automatically grade you **"FX"**. If you miss a class, it is your responsibility to 'make up' all work, including items discussed in class. Class contribution will be measured in terms of quality not quantity

**Academic integrity & plagiarism:** Academic integrity is the pursuit of scholarly activity based on the values of: honesty, trust, fairness, respect and responsibility. Practicing academic integrity means never plagiarizing or cheating, never misrepresenting yourself, never falsifying information, never deceiving or compromising the work of others. Basically this means, either intentionally or unintentionally, using the words or ideas of someone else without giving credit, it's strictly forbidden.

**Specific Rules:**

1. Be punctual. Punctuality is a sign of respect toward yourself and the others.
2. Show respect for all the people and property around you.
3. Be responsible for your actions and meet all expectations.
4. Follow directions the first time they are given.
5. No candies or gums are allowed in the classroom during classes.
6. Students should raise their hand to signal a question or to answer a question.
7. Students should use the Internet at school for academic purposes only.

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8. It is forbidden to record classes with any type of device.
9. Each student has a different learning style. Please create your own strategy to learn the topics mentioned in Syllabus.
10. If you request, the instructor may repeat the lecture in the class or in the office and explain the subjects that you do not understand.
11. Students will be prepared for market conditions and their professional life during education period. Everyone will be treated equally and fairly. Please do not expect a privileged or special treatment from your instructor.
12. Please send your requests about the course to the instructor without delay. When the training process is completed, it is not possible to fulfill any demand.

**Communication:**

If you have any questions about the syllabus, your responsibilities in the course and assessment procedures please ask your instructor without any delay.

Students are encouraged to visit the professor during their Office Hours. If you cannot make it to announced office hours, please make individual arrangements via e-mail. However, do not expect the professor and the research assistant to respond at length via e-mail to questions of content, the definition of terms, grading questions, etc. If you have a question that requires a substantive response, please set up an appointment to speak with us.

**Course Contents\*:  
(Weekly Lecture Plan)**

Date	Week	Chapter Topic	Take-home exercise
15.02.2024	1	<b>Introduction to the Course</b>	N/A
22.02.2024	2	<b>Introduction to the Building Types and Building Materials</b>	Exercises related to the subject will be announced in the class.
29.02.2024	3	<b>Building Sub- System:</b> Structural Systems-Parts of Buildings from Foundation to the Roof	Exercises related to the subject will be announced in the class.
07.03.2024	4	<b>Building Sub- System:</b> Structural Systems-Parts of Buildings from Foundation to the Roof	Exercises related to the subject will be announced in the class.
14.03.2024	5	<b>Building Sub- System:</b> Building Element System - External Wall Systems	Exercises related to the subject will be announced in the class.

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21.03.2024	6	<b>Building Sub- System:</b> Building Element System - External Wall Systems	Exercises related to the subject will be announced in the class.
28.03.2024	7	<b>Building Sub- System:</b> Building Element System - Internal Wall Systems	Exercises related to the subject will be announced in the class.
	8	<b>MIDTERM SUBMISSION</b>	
11.04.2024	9	<b>RAMADAN HOLIDAY</b>	
18.04.2024	10	<b>Workshop- Building Sub-System:</b> Building Element System - Internal Wall Systems	Exercises related to the subject will be announced in the class.
25.04.2024	11	<b>Building Sub- System:</b> Building Element System - Floor Systems	Exercises related to the subject will be announced in the class.
02.05.2024	12	<b>Building Sub- System:</b> Building Element System - Suspended Ceiling Systems	Exercises related to the subject will be announced in the class.
09.05.2024	13	<b>Building Sub- System:</b> Building Element System - Doors and Windows	Exercises related to the subject will be announced in the class.
16.05.2024	14	<b>Building Sub- System:</b> Building Element System - Vertical Circulation Systems: Ramps, Stairs, Lifts	Exercises related to the subject will be announced in the class.
			<b>FINAL EXAM</b>

\* PLEASE NOTE: Details of the syllabus and course schedule are subject to mi that will be announced in class.

**Grading:** Research projects and final exam responses will be evaluated for accuracy, thoughtfulness and clarity. Assignments will be evaluated for content, quality of ideas and clarity of presentation (including both writing and graphics). **If total assessment grade is lower than 50, student needs to repeat the course.**

Assessment Methods  
and Criteria :

METHODS	EFFECTS ON GRADING
Assignments	20 %
Midterm Exam	30 %

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Final Submission 50 %

ECTS Workload Table :	ACTIVITIES	NUMBER	HOUR	WORKLOAD
	Course Teaching Hours	13	3	39
	Assignment(s)	1	15	15
	Self-study for Midterm Submission	1	8	8
	Self-study for Final Submission	1	13	13
	<b>Total Workload</b>	<b>0</b>	<b>0</b>	<b>75</b>
	<b>Total workload/25</b>			<b>75/25</b>
	<b>ECTS</b>			<b>3</b>

**GRADING AND EVALUATION**

The students' progress will be evaluated throughout the semester. Students' grades point **lower than 50** will be considered as failed.

Grade Scale:

GRADE	MARKS	VALUE	GRADE	MARKS	VALUE
A+			C+	60-64	2.40
A	95-100	4.00	C	55-59	2.20
A-	85-94	3.70	C-	50-54	1.70
B+	80-84	3.30	D+	45-49	1.30
B	75-79	3.00	D	40-44	1.00
B-	65-74	2.70	F	0-39	0.00

**Course outline and evaluation criteria can be changed according to weekly progress by course instructor. If any change will occur, it will announce to students via e-mail.**