

Course Code	Course Name	Year/Semester	Theory	Practice	Credits	ECTS
IAED 2503	Material and Construction Technologies in Interior Space II	2024-2025 / Fall	2	2	3	5

**Level of Course:** Undergraduate

**Course Type:** Core Course

**Language of**

**Instruction:** English

**Course time:** 09.00-13.00 Wednesday (Sec. I) 13.30-17.30 Wednesday (Sec. II)

**Course classroom:** B1-31 (STD F1)

**Mode of Delivery:** Class Teaching, Assignments, Presentations

**Prerequisites and** Prerequisites: IAED 1502 Material and Construction Technologies in Interior Space I

**Co-requisites:** Co-requisites: None

**Course Coordinator:** Lec. Kadir Emre Bakır

**Name of Lecturer(s):** Lec. Dr. Arzu Çakmak (Sec. I), Lec. Canan Bedur (Sec. II), Lec. Kadir Emre Bakır

**Course Teaching**

**Assistant:** -

**Course Objectives:** The aim of the introductory module is providing students materials and construction elements, in order to easily enhance a more detailed study in the next module. Comprehension of the influence of material selection on design. Understanding the principles and standards related to the production, use, and application of building materials and components.

**Course Description:** Materials are taught in relation to construction technologies and design. Main properties of building materials, partitions, furniture, circulation elements, ceiling and mezzanine systems are taught through practices.

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

- Develop a comprehensive understanding of floor, wall, and ceiling systems, gaining insight into their functions and design.
- Gain overall understanding of how to determine the most suitable materials for spaces and detail them in accordance with the materials' characteristics and appropriate joining methods.
- Understand different types of vertical and horizontal circulation systems, including their minimum requirements, fundamental calculations, and comfort conditions.
- Develop an understanding of different methods for representing details and materials through drawings at various scales and in 3D models.
- Develop an understanding of how to produce consistent and comprehensive sets of drawings.

**Language:** The studio classes and discussions will be in English. Developing your verbal language skills will be very important in acquiring the disciplinary terminology as well as daily communication at the class.

**Text Books:**

- 1- Rosen, H.J., Heineman, T., "Architectural Materials for Construction", McGraw-Hill Inc., NY, 1996.
- 2- Toydemir, N., Gürdal, E., Tanacan, L., "Yapı Elemanı Tasarımında Malzeme", Literatür Yayınevi, İstanbul, 2000.
- 3- Bindra, S.P. and Arora, S.P., Building Construction: Planning Techniques and methods of Construction
- 4- Moxley, R. Mitchell's, Elementary Building Construction.
- 5- Rangwala, S.C., Building Construction: Materials and types of Construction
- 6- Francis D. Ching, Building Construction Illustrated

**Recommended Text Books:**

- 1- Meta, M.; Scarborough, W.; Arm Priest, D., 2009, Building Construction: Principles Materials and Systems, 2nd Ed.,
- 2- Foster, J.S.; Greeno, R., 2007, Structure and Fabric, part 1; 7th Ed. Pearson
- 3- Allen, E., 2005, How Buildings Work, the natural order of Architecture, 3rd Ed., Oxford University Press
- 4- Szokolay, S., Introduction to Architectural Science, the basis of sustainable design, Architectural Press
- 5- Kocataşkın, F., "Yapı Malzemesi Dersleri", İstanbul Teknik Üniversite Matbaası, Gümüşsuyu, 1973.
- 6- Salvadori, M. Why buildings stand up. The strength of architecture, W.W. Norton & Company, London, NY
- 7- Toydemir, N., "Cam Yapı Malzemeleri", Eskişehir: Sakarya Gazetecilik ve Matb. AŞ., 1990.

**For the terminology:**

**Reading Textbooks:**

**Planned Learning Activities and Teaching Method:**

**Learning/Teaching Method:** The expected learning outcomes for the course will be assessed through: Assignments, a Midterm Exam, a Final Exam and Class discussions and feedback.

**Assignments:** Students are required to **take quizzes related to the subject of the previous week** throughout the semester.

**Class Participation:** Regular attendance of all enrolled classes is expected. Do not be late for the class. Attendance will be taken through your signature within the first quarter of the class; if you come later you will be considered absent. At the end of the Semester, your attendance will be reported on UBS. Attendance is compulsory and in case of absenteeism of more 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. The class contribution will be measured in terms of quality, not quantity. If you need to leave early for whatever reason, you should exercise politeness and notify your professor at the commencement of the session.

**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.

**Course Textbooks:** There is no specific textbook for this course but topics will mainly follow the chapters in the book 'Construction Materials' by Peter Domone and John Illston.

**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 hands to signal a question or to answer a question.
7. Students should use the Internet at school for academic purposes only.
8. It is forbidden to record classes with any type of device.
9. Each student has a different learning style. Please create your strategy to learn the topics mentioned in Syllabus.
10. If you request, the instructor may repeat a lecture in the class or the office and explain the subjects that you do not understand.
11. Students will be prepared for market conditions and their professional life during the 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.
13. **Bringing necessary materials and equipment (architectural bag, T square, set squares, pencils, compasses and sketch papers etc.) to work in the classroom is obligatory.**

**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 one of us.

**Key Works:** In this course lectures and assignments mainly focus on the following course content.

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

Date	Week	Chapter Topic	Take-home exercise
25.09.24	1	<b>Introduction to the Course</b> Syllabus, Lectures, Assignments, Evaluation Material Choosing Factors and Criteria	
02.10.24	2	<b>Project Design and Drawing</b>	Exercises related to the subject will be announced in the class
09.10.24	3	<b>Partition Systems</b> : Wooden Framed Fixed Partition with Single/Double Wall, Aluminium Framed Partition, Dry Wall Partition Systems, Full Glass	Exercises related to the subject will be announced in the class

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		Partition with Architectural Hardware and their Drawings	
<b>16.10.24</b>	<b>4</b>	<b>Wall Cladding and Paneling: Wet and Dry Wall Cladding in Different Materials, Wall paneling in Different Materials and their Drawings</b>	Exercises related to the subject will be announced in the class
<b>23.10.24</b>	<b>5</b>	<b>Floor Systems and Finishings-Drawing</b>	Exercises related to the subject will be announced in the class
<b>30.10.24</b>	<b>6</b>	<b>Ceiling Systems and Finishing-Drawing</b>	Exercises related to the subject will be announced in the class
<b>06.11.24</b>	<b>7</b>	<b>Design and Connections of Fixed Furnitures to be Used In The Design-Drawings</b>	Preparation for the Midterm Exam
	<b>8</b>	<b>MIDTERM EXAM</b>	
<b>20.11.24</b>	<b>9</b>	<b>Mezzanine Systems-Drawings</b>	Exercises related to the subject will be announced in the class
<b>27.11.24</b>	<b>10</b>	<b>Vertical Circulation Elements-Drawings</b>	Exercises related to the subject will be announced in the class
<b>04.12.24</b>	<b>11</b>	<b>Vertical Circulation Elements-Drawings</b>	Exercises related to the subject will be announced in the class
<b>11.12.24</b>	<b>12</b>	<b>Doors and Windows Drawings</b>	Exercises related to the subject will be announced in the class
<b>18.12.24</b>	<b>13</b>	<b>Detailed Drawings, Models and Material Sheets of The Project</b>	Exercises related to the subject will be announced in the class
<b>25.12.24</b>	<b>14</b>	<b>Detailed Drawings, Models and Material Sheet Of The Project</b>	Preparation for the Final Submission
<b>01.01.25</b>	<b>15</b>	<b>National Holiday</b>	
	<b>16</b>	<b>FINAL EXAM</b>	

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

**Grading:** Midterm 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).

**Assessment Methods and Criteria :**

METHODS	EFFECTS ON GRADING
In-Class Drawings and Assignments	30%
Midterm Exam	20%
Final Submission	50%
	100

**ECTS Workload Table :**

ACTIVITIES	NUMBER	HOUR	WORKLOAD
Course Teaching Hours	<b>14</b>	<b>2</b>	<b>28</b>
Self-study for Assignments	<b>10</b>	<b>3</b>	<b>30</b>

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Assignments	10	2	20
Self-study for Midterm Exam	1	13	13
Midterm Exam	1	4	4
Self-study for Final Exam	1	28	28
Final Submission	1	2	2
<b>Total Workload</b>	<b>0</b>	<b>0</b>	<b>125</b>
<b>Total workload/25</b>			<b>125/25</b>
<b>ECTS</b>			<b>5</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.**