



Course Code	Course Name	Year/Semester	Theory	Practice	Credits	ECTS
IAED 1502	Material and Construction Technologies in Interior Space I	2020/Spring	1	2	2	3

**Level of Course:** Undergraduate

**Course Type:** Core Course

**Language of Instruction:** English

**Course time:** Thursday 09.00– 12.50,

**Office Hours:** Thurs. 09.00-12.00

**Course classroom:** BB-36

**Mode of Delivery:** Class teaching, presentation, assignments, research project

**Prerequisites and** Prerequisites: None

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

**Course Coordinator:**

**Name of Lecturer(s):**

**Course Teaching** Asst. Prof. Dr. Mustafa KÜÇÜKTÜVEK

**Assistant:** Setenay UÇAR

**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. Focusing on pre and postindustrial scenario, through an excursus on the historical development of skills and techniques until Industrial revolution, the impact of industrial production on both materials and construction methods will be underlined.

**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.

The classes and discussions will be in English. Developing your verbal language skills will be very important in

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**Language:** 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.

**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, a research project and Final Exam.

**Assignments:** A presentation are intended to complement the reading and lecture discussions.

**Research Project:** A midterm research project will be giving according to course objectives.

**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 absent. At the end of the Semester, your attendance will be reported on SIS system. Attendance is compulsory and in case of absenteeism of more than 20%, 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. 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.

**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.
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.

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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
13.02.2020	1	<b>Introduction to the Course Introduction to Buildings and Constructions</b>	Students responsible for to read course book and to prepare their presentations and midterm research project on time.
20.02.2020	2	<b>Classifications of Buildings</b>	N/A
27.02.2020	3	<b>Classifications of Buildings: The Building process</b>	N/A
05.03.2020	4	<b>Building elements and their properties: Foundations</b>	Presentations
12.03.2020	5	<b>Building elements and their properties: Walls/columns/vertical elements</b>	Presentations
19.03.2020	6	<b>TECHNICAL TRIP Building elements and their properties: Slabs/beams/ floor/ceiling systems/ horizontal elements</b>	Presentations
26.03.2020	7	<b>Building elements and their properties: Roof systems , windows/doors</b>	Presentations <b>Starting to Evaluation of Midterm Research Projects</b>
	8	<b>MIDTERM SUBMISSION</b>	N/A
09.04.2020	9	Structural Steel Construction	Presentations <b>Research Projects</b>

16.04.2020	10	<b>TECHNICAL TRIP</b> Concrete Construction	Presentations <b>Research Projects</b>
23.04.2020	11	Wood Construction	Presentations <b>Research Projects</b>
30.04.2020	12	Heating, Ventilation, and Air Conditioning	Presentations <b>Research Projects</b>
07.05.2020	13	Plumbing-Water-Supply, Sprinkler, and Wastewater Systems Electrical Systems	Presentations <b>Research Projects</b>
14.05.2020	14	The building site Building Lifecycle	Presentations <b>Research Projects</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:** 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).

**Assessment Methods and Criteria :**

METHODS	EFFECTS ON GRADING
Notes kept in the class	10 %
Assignments	20 %
Midterm Research Project	30 %
Final Exam	40 %

**ECTS Workload Table :**

ACTIVITIES	NUMBER	HOUR	WORKLOAD
Course Teaching Hours	14	3	42
Assignment(s)	4	2	8
Midterm Research Project	1	15	15
Self-study for Final Exam	1	10	10
<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.

Grade Scale:

GRADE	MARKS	VALUE	GRADE	MARKS	VALUE
A+			C+	60-64	2.30
A	95-100	4.00	C	55-59	2.00
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