ANTALYA BİLİM ÜNİVERSİTESİ

DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

| Course Code | Course Name | Year/Semester | Theory | Practice | Credits | ECTS |
|---|---|---|---|---|---|---|
| IAED 3502 | INNOVATIVE CONSTRUCTION TECHNIQUES AND MATERIALS IN INTERIOR SPACE | 2020-2021 / SPRING | 3 | 0 | 3 | 3 |

**Level of Course:** Undergraduate
**Course Type:** Core Course
**Language of Instruction:** English
**Course time:** Tuesday, 09.00 – 12.00
**Course classroom:** -
**Mode of Delivery:** Class Teaching, Presentation, Assignments
**Prerequisites and Co-requisites:** IAED 2503
**Course Coordinator:** Prt. Lec. Begüm SÖYEK ABAY

**Name of Lecturer(s):**
**Course Teaching Assistant:**

**Course Objectives:** The aim of the course; to provide students with knowledge about the new construction systems of the students and to have knowledge about the carrier and other building elements that make up the structure, to help them to gain system selection and system building skills during design, to be able to look at building systems as a whole, to inform about various building damages.

**Course Description:** To introduce Intelligent and Interactive Space concept and definitions, provide the idea of interdisciplinary working, the latest technologies used to create this kind of spaces' design are introduced by defining in different application areas.

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

1. Students may have knowledge about new construction technologies.
2. Students will learn new building elements and materials.
3. Students will be able to gain knowledge about the bearing system.
4. Students will learn new structural techniques in interior space.

**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:** --

**Recommended Text Books:**

1. Basics Interior Architecture 01: Form and Structure: The Organisation of Interior Space. Graeme Brooker, Sally Stone, 2007.
2. Form and Structure in Interior Architecture, Brooker, Sally Stone, 2005.

**For the terminology:**

3. Designing Interior Architecture: Concept, Typology, Material, Construction. Sylvia Leydecker, 2013.

**Reading Text books:**

4. Structure as design: 23 projects that wed structure and interior design. Isabel Allen, 2000Architectural Model making (Portfolio Skills: Architecture) by Nick Dunn
5. Innovation Spaces: The New Design of Work. Julie Wagner and Dan Watch, 2017.

**Planned Learning Activities and Teaching Method:**

**Learning/Teaching Method:** This is a theory course and students time to time will be engaged to basic challenges for a better understanding about the content of the course. Course will be supported by short verbal lectures at the end later individual short presentations of the students.

**Assignments:** Two presentations will be given to students.

**1st Ass: (Group Presentation)**
Take any of the examples of interior architectural projects that have made an important contribution to contemporary architecture and which have been designed by an **award-winning designer**. Analyze this project by emphasizing **innovative features** and use which have an important contribution to the form and its expression. Identify the materials forming the interior design elements. Think over contemporary and innovative material concept.
Note: Students should create their own groups. Modules must be presented in Microsoft Teams platform to be graded. Please select the topics below:

- Energy Efficient Design in Interior Architecture
- Biomimicry in Interior Architecture
- High-tech and Smart Interiors

**2nd Ass: (Group Presentation)**

- Take any of the examples of interior architectural projects that have made an important contribution to contemporary architecture and which have been designed by an **award-winning designer**. Analyze this project by emphasizing **innovative features** and use which have an important contribution to the form and its expression. Identify the materials forming the interior design elements. Think over contemporary and innovative material concept.
- By considering today's innovative building materials (an award-winning product is preferred or a new way of usage of an existing material) please **analyze and write down:** Why is this product produced to fulfill which performance requirement, what type of material is used to produce it, how is it produced, it's physical performance and how it is used in the building application?

Note: Students should create their own groups. Modules must be presented in Microsoft Teams platform to be graded.

**Class Participation:** Regular attendance of all enrolled classes is expected. **For this course minimum 80% attendance is expected.** 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 **30%,** 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.

**Course Textbooks:** There is no specific textbook for this course. Students are required to study the recommended reading textbooks and also do the research on the variety of architectural presentation techniques.

**Key Works**: In this course assignments mainly focuses on learning the new developments in interior space structure and materials.

## 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. Students should use the Internet at school for academic purposes only.
6. It is forbidden to record classes with any type of device.

**Communication**: 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, 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.

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

| Date | Week | Chapter Topic | Take-home exercise | |
|---|---|---|---|---|
| **03.03.21** | **1** | **Introduction to the Course,** Definition of the "Innovation", The development of technology and its impact on interior design | - | |
| **10.03.21** | **2** | **Understanding the building structure:** building structural elements (general design principles of concrete and steel frame systems, foundation principles, general dimensional and constructional requirements of the columns, beams, girders, shear walls, trusses, the column spacing etc. | - | |
| **17.03.21** | **3** | **Energy Efficient Design in Interior Architecture** | Presentation preparation: Energy Efficient Design in Interior Architecture | |

| | | | |
|---|---|---|---|
| **24.03.21** | **4** | **Biomimicry in Interior Architecture - Presentations** | Presentation preparation: Biomimicry in Interior Architecture |
| **31.03.21** | **5** | **High-tech and Smart Interiors - Presentations** | Presentation Preparation: High-tech and Smart Interiors |
| **07.04.21** | **6** | **Presentations - Announcing Midterm Project** | Midterm Project Preparation |
| **14.04.21** | **7** | **Analysis of New Materials to be used for different performance requirements:** structural materials: Wood, Concrete, Steel - Discussion about Midterm Project | Midterm Project Preparation |
| **21.04.21** | **8** | **MIDTERM EXAM WEEK** | |
| **28.04.21** | **9** | **Analysis of New Materials to be used for different performance requirements such as:** dividing walls and wall cladding materials. | |
| **05.05.21** | **10** | **Analysis of New Materials to be used for different performance requirements such as:** flooring and roofing materials. | Presentation Preparation (2nd. Ass.) |
| **12.05.21** | **11** | **Shelter Design - Presentations** | Presentation Preparation (2nd. Ass.) |
| **19.05.21** | **12** | **Holiday** (make-up course will be held) – Presentations and Announcing Final Project | |
| **26.05.21** | **13** | **Discussion and critiques about Final Project** | Final Project Preparation |
| **02.06.21** | **14** | **Discussion and critiques about Final Project** | Final Project Preparation |
| | **FINAL EXAM** | | |

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

**Grading**: Midterm and final exam projects will be evaluated based on the requirements that will be announced during the lesson. Assignments will be evaluated based on the quality of presentation. Students with the Final Grade below D- (40) are required to repeat the course.

**Assessment Methods and Criteria :**

| METHODS | EFFECTS ON GRADING |
|---|---|
| Presentations | 20% |
| Midterm Project | 30% |
| Build-up Project | 10% |
| Final Project | 40% |

**ECTS Workload Table :**

| ACTIVITIES | NUMBER | HOUR | WORKLOAD |
|---|---|---|---|
| Course Teaching Hours | 13 | 3 | 39 |
| Presentations | 2 | 5 | 10 |
| Midterm Project Preparation | 1 | 10 | 10 |

| | | | |
|---|---|---|---|
| Final Project Preparation | 1 | 16 | 16 |
| **Total Workload** | 0 | 0 | 75 |
| **Total workload/25** | | | 75/25 |
| **ECTS** | | | 3 |

**GRADING AND EVALUATION**

Grade Scale:

| GRADE | MARKS | VALUE |
|---|---|---|
| A+ | 100 | 4.00 |
| A | 95-100 | 4.00 |
| A- | 85-94 | 3.70 |
| B+ | 80-84 | 3.30 |
| B | 75-79 | 3.00 |
| B- | 65-74 | 2.70 |

| GRADE | MARKS | VALUE |
|---|---|---|
| C+ | 60-64 | 2.30 |
| C | 55-59 | 2.00 |
| C- | 50-54 | 1.70 |
| D+ | 45-49 | 1.30 |
| D | 40-44 | 1.00 |
| F | 0-39 | 0.00 |