ANTALYA BİLİM ÜNİVERSİTESİ

DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

Course Code	Course Name	Year/Semester	Theory	Practice	Credits	ECTS
IAED 4357	Conceptual Innovation	2024-2025 / FALL	3	0	3	4

Level of Course: Undergraduate

Course Type: Elective Course

Language of Instruction: English

Course time: Tuesday 14:00-17:00

Course classroom: B1-66

Mode of Delivery: Class Teaching, Presentation, Assignments, In-Class discussions

Prerequisites and Co-requisites: N/A

Course Coordinator: Lec. Gamze Akyol

Course Teaching Assistant: N/A

Course Objectives: The course aims to explore the integration of Artificial Intelligence (AI) and emerging technologies in interior design practice. It emphasizes the conceptual innovation process through AI tools to enhance creativity and improve design strategies. Students will learn how to use AI for interior designing, space planning, and material selection.

Course Description: This course mainly focuses on artificial intelligence and innovation usage in interior spaces.

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

- Students will demonstrate an understanding of how AI tools can be integrated into the interior design process, from concept development to execution.
- Students will apply AI-based software and technologies to solve complex design challenges, enhancing creativity and efficiency in developing innovative design concepts.
- Students will critically assess current trends and technological advancements in AI, understanding their potential impact on the future of interior design.
- Students will create design proposals using AI tools for visualization, spatial planning, and material selection, showcasing innovation in both aesthetics and functionality.
- Students will work effectively in interdisciplinary teams, using AI tools to enhance communication, collaboration, and project management within the interior design process.

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.

Recommended Text Books:

1. Almaz, A. F., El-Agouz, E. A., Abdelfatah, M. T., & Mohamed, I. R. (2024). The future role of Artificial Intelligence (AI) design's integration into architectural and interior design education is to improve efficiency, sustainability, and creativity. Civil Engineering and Architecture, 12(3), 1749–1772. https://doi.org/10.13189/cea.2024.120336

2. Lee, J.-K., Jeong, H., Kim, Y., & Cha, S. H. (2024). Creating spatial visualizations using fine-tuned interior design style models informed by user preferences. Advanced Engineering Informatics, 62, 102686. https://doi.org/10.1016/j.aei.2024.102686

3. Lesmana, V. A., Tina, A., & Retno Yanti, S. (2024). Optimizing AI's role in advancing Interior Design Industry. Journal of Artificial Intelligence in Architecture, 3(2), 61–71. https://doi.org/10.24002/jarina.v3i2.7908

Planned Learning Activities and Teaching Method:

Learning/Teaching Method: This is a theoretical and students will reinforce their achievements on the subject with in-class practices. The lectures are supported by class practices, presentations group works and one-to-one critique sessions.

Project development: A series of assignments with an emphasis on the main topic will be offered in this course. For developing the projects minimum of 70% critiques are expected. The development of the project will be evaluated by following the project improvement during the critique sessions.

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 half-attended. At the end of the Semester, your attendance will be reported on the UBS. 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. The class contribution will be measured in terms of quality, not quantity. If you need to leave early, you should 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 Text books: Students are required to study recommended reading textbooks and also do researches on the variety of architectural presentation techniques.

Key Works: In this course, lectures and assignments primarily focus on the integration of AI tools in the interior design process, exploring how technology can enhance creativity, efficiency, and innovation. Students will engage with the conceptual and philosophical implications of AI in design, including the evolving role of the designer in a tech-driven world.

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. Students should raise their hand to signal a question or to answer a question.
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: If you have any question 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 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 your instructor.

Course Contents*: (Weekly Lecture Plan)

Date	Week	Chapter Topic	Take-home exercise	
24.09.24	**1**	Introduction to *innovation in concept*		
01.10.24	**2**	Principles of metaverse in the field of architecture		
08.10.24	**3**	Principles of vr & ar technologies in the field of architecture		
15.10.24	**4**	Principles of artificial intelligence in the field of architecture	**Take-home Exercise**: Concept Creation with the help of ai	
22.10.24	**5**	Ai presentation (Instructor)	**Assignment 1:** Presentation Assignment	
29.10.24	**6**	***National Holiday***	-	
05.11.24	**7**	Student Presentations +Discussion	Midterm Preparation	
	8	**MIDTERM EXAM/ SUBMISSION**	(20%)	
19.11.24	**9**	Student Presentations +Discussion		
26.11.24	**10**	Student Presentations +Discussion		
03.12.24	**11**	Student Presentations +Discussion	**Assignment 2:** Choose one of your previous projects. Revise the project with the help of ai.	
10.12.24	**12**	Project development-critiques	Final preparations	

17.12.24	**13**	Project development-critiques	Final preparations	
24.12.24	**14**	Project development-critiques	Final preparations	
31.12.24	**15**	Poster preparation		
		FINAL SUBMISSION		

* 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. Students' progress also will be evaluated throughout the semester based on their performance in critiques. Students with the Final Grade below C- (50) are required to repeat the course. Participation in in-class discussions will affect the evaluation criteria.

Assessment Methods and Criteria :

METHODS	EFFECTS ON GRADING
Class Participation	10%
Take-home Exercise	10%
Presentation/Quiz	20%
Midterm	20%
Final Submission	40%

ECTS Workload Table :

ACTIVITIES	NUMBER	HOUR	WORKLOAD
Course Teaching Hours	**13**	**3**	**39**
Assignment(s)	**2**	**4**	**8**
Midterm Preparations	**1**	**3**	**3**
Midterm	**1**	**3**	**3**
Project development	**3**	**3**	**9**
Final Preparations	**1**	**10**	**10**
Final	**1**	**3**	**3**
Total Workload	**0**	**0**	**75**
Total workload/25			**75/25**
ECTS			**3**

GRADING AND EVALUATION

The students' progress will be evaluated throughout the semester.

Grade Scale:

GRADE	MARKS	VALUE
A+	-	
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	2.40
C	55-59	2.20
C-	50-54	1.70
D+	45-49	1.30
D	40-44	1.00
F	0-39	0.00