

Course Code	Course Name	Year/Semester	Theory	Practice	Credits	ECTS
IAED 3105	Computer Aided Modelling	2024-2025 / Fall	1	2	2	3

Level of Course: Undergraduate

Course Type: Must

Language of Instruction: English

Course time: Monday 13.30-16.30

Course classroom:

Mode of Delivery: Presentation, Assignments

Prerequisites and Co-requisites: IAED 1102 – Technical Drawing II

Course Coordinator:

Name of Lecturer(s): Asst. Prof. Dr. Başak KARADUMAN

Course Teaching Assistant: Res. Asst. Müge Develier

Course Objectives: Introduction and providing comprehensive knowledge with practices to 3D modelling and rendering software.

Course Description: The main purpose of this course is to furnish students with comprehensive knowledge of 3ds Max modelling and rendering software. 3D models and presentations ease students to express their designs.

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

- Students will be able to recognize 3ds Max interface.
- Students will be able to recognize different modelling methods in 3ds Max.
- Students will use modelling techniques in advance level.
- Students will be able to express their design ideas through 3D models.
- Students will have comprehensive knowledge about different renderers.

Language: The course and discussions will be in English.

Text Books: -

Recommended Text Books:

- Architectural Rendering with 3ds Max and V-Ray: Photorealistic Visualization, Markus Kuhlo, 2010.
- Kalay Y. E., (2004), Architecture's New Media: Principles, Theories and Methods of Computer-Aided Design, MIT Press

For the terminology: -

Reading Text books: -

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

Assignments: Students are required to complete and submit assignments for both in class exercise and homework according to syllabus.

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 15 minutes 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 system. 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. 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 Text books: There is no specific textbook for this course.

Key Works: In this course, lectures and assignments mainly focus on preparing students to the professional life and presenting 3D models by using Real-Time Renderers.

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.

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4. Follow directions the first time they are given.
5. Students should raise their hand to signal a question or to answer a question.
6. Students should use the Internet at school for academic purposes only.
7. It is forbidden to record classes with any type of device.

Communication: Students are encouraged to visit the lecturer during his/ her office hours. If you cannot make it to announced office hours, please make individual arrangements via e-mail. However, do not expect the lecturer 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
23.09.24	1	Introduction to 3Ds Max -GUI (Graphical User Interface) -Units -Navigation	Further Research, online tutorials
30.09.24	2	Creating and editing objects -Create Menu -Edit, Position, Move, Rotate, Scale -Pivot -Object Views -Groups	Further Research, online tutorials
7.10.24	3	Spline Modelling -Snaps -Copy, Array, Mirror, Align -2D Objects -Extrude -Geometry Menu: Vertex, Segments, Spline	Ass 1: Will be announced during the course Further Research, online tutorials
14.10.24	4	2D Modifiers -Edit Spline -Extrude, Bevel, Lathe, Fillet, Chamfer, Bevel profile, Trim, Extend	Further Research, online tutorials
21.10.24	5	Polygon/ 3D modelling tools -Edit Polly: Vertex, Edge, Border, Polygon, Element	Ass 2: Will be announced during the course Further Research, online tutorials
28.10.24	6	Polygon modelling menus -Edit Poly: Geometry Menu	Further Research, online tutorials
4.11.24	7	Compound Objects -Proboolean General Practice before Midterm	Further Research, online tutorials
	8	MIDTERM EXAM WEEK	

18.11.24	9	Modifiers -Bend, Noise, Slice, Turbo Smooth, Taper, Twist, FFD	Ass 3: Will be announced during the course Further Research, online tutorials
25.11.24	10	Materials -Material Editor -UVW Map	Further Research, online tutorials
2.12.24	11	Lights	Further Research, online tutorials
9.12.24	12	Cameras	Further Research, online tutorials
16.12.24	13	Render Settings	Ass 4: Will be announced during the course Further Research, online tutorials
23.12.24	14	General Review before Final	Further Research, online tutorials
30.12.24	15	General Review before Final	Further Research, online tutorials
			FINAL PROJECT

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

Grading: Midterm and final exam responses will be evaluated for accuracy, thoughtfulness and clarity. All 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 need to repeat the course.**

Assessment Methods and Criteria :

METHODS	EFFECTS ON GRADING
Assignments	%20
Midterm Exam	%30
Final Project	%50
	%100

ECTS Workload Table :

ACTIVITIES	NUMBER	HOUR	WORKLOAD
Course Teaching Hours	14	1	14
Practical	14	2	28
Homeworks	4	2	8
Self-study for Midterm Project	1	10	10
Self-study for Final Project	1	15	15
Total Workload	0	0	75
Total workload/30			75/25
ECTS			3



GRADING AND EVALUATION

The students' progress will be evaluated throughout the semester.

Grade Scale:

GRADE	MARKS	VALUE	GRADE	MARKS	VALUE
A+	-		C+	60-64	2.40
A	95-100	4.00	C	55-59	2.20
A-	85-94	3.7	C-	50-54	1,70
B+	80-84	3.3	D+	45-49	1.30
B	75-79	3.00	D	40-44	1.00
B-	65-74	2.7	F	0-39	0.00