



Course Code	Course Name	Year/Semester	Theory	Practice	Credits	ECTS
IAED 3104	Material and Construction Techniques for Furniture Design	2025-2026/SPRING	2	2	3	4

Level of Course: Undergraduate

Course Type: Mandatory Course

Language of

Instruction: English

Course time: Friday, 9:00 – 13:00

Course classroom: BB-35

Mode of Delivery: One on one critique, Class Teaching, Presentation, Assignments.

Prerequisites and

Co-requisites: IAED 1102 – Technical Drawing II (Prerequisite)

Course Coordinator: Asst. Prof. Dr. M.Uğur Kahraman

Name of Lecturer(s): Lec. Kadir Emre Bakır

Course Teaching Assistant: Res. Asst. Müge Develier

Course Objectives: The aim of this course is designing a piece of furniture, by starting with conceptual development and production of working drawings, and an actual size and material seating element that represents the original idea. The primary objective of this design studio is to design a piece of furniture in respond to the requirements of a proposed context and design profile. *This seating element will be built with the help of professionals.*

Course Description: *This course provides an in-depth exploration of furniture joinery techniques and detailed technical drawing, exclusively through hand-drawing methods. Participants will gain practical skills in creating precise and detailed drawings of furniture joints and designs, emphasizing traditional craftsmanship and manual drafting techniques without the use of digital tools.*

Learning Outcomes:

- *Become aware of teamwork, division of labor and distribution of responsibilities throughout the design and production process.*
- *Use the information obtained by analyzing human perception and behavior in design solutions.*
- *Gain knowledge about furniture installation, assembly methods and requirements.*
- *Gain knowledge on detailing, determining materials and finishes in furniture production.*
- *Gain knowledge of rules, regulations and guidelines for materials.*

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.

Planned Learning Activities and

Teaching Method:

Learning/Teaching Method: *This is a studio course and students learn about design process by getting directly involved in the process. The studio practice is supported by lectures and group critique sessions. The main teaching medium in studio is individual critiques.*

Project Development: *A series of assignments with emphasis on the main topic will be offered in this course. Throughout the semester assignments will mainly include solid wood furniture joinery drawings as well as a conceptual chair design and its' production drawings.*

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 half-attended. 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.*

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.*

Use of Artificial Intelligence (AI):

Students are permitted to use artificial intelligence (AI) tools (such as ChatGPT, Grammarly, etc.) for grammar correction and academic writing improvement throughout their work. However, AI-generated original content (e.g., analysis, paragraph writing, conceptual description, etc.) must not exceed 20% of the submitted material.

DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

In any case where AI tools are used, students are required to include a clear declaration within the assignment/report/submission. This declaration must include the name of the AI tool/model used, the specific purpose, and a brief explanation of how it contributed to the work.

Example declaration:

"I used ChatGPT-4 for proofreading and restructuring the introductory paragraph."

Failure to declare the use of AI tools when applied will be treated as a violation of academic integrity and plagiarism policies and may result in disciplinary action.

Course Text books: There is no specific textbook for this course. Students are required to study the recommended reading text books such as

1. *Fine Wood Working on Planes and Chisels*, The Taunton Press
2. *Designing Furniture by Seth Stem*, The Taunton Press
3. Tilley, A.R., Henry Dreyfuss Associates (2002). *The Measure of Man and Woman: Human Factoring Design*. New York: John Wiley & Sons, Inc. ISBN 0471099554
4. *The Art of Making Furniture by John Makepeace*, Sterling Publishing Co.
5. *The Unknown Craftsman by Soetsu Yanagi*
6. *Fine Woodworking on Joinery*, The Taunton Press
7. *The Fine Art of Cabinet Making by James Krenov*, Van Nostrand Reinhold Co.

Key Works: In this studio course lectures and assignments mainly focuses on furniture cornering and joints.

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
13.02.26	1	Brief explanation of the course and course materials and groups	N/A

DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

20.02.26	2	<i>In-Class Drawing (Manual Drawing)</i> <i>-Technical Representation of Joints and Connections</i> <i>-Furniture Project critiques/ concept and overall design</i>	N/A
27.02.26	3	<i>In-Class Drawing (Manual Drawing)</i> <i>-Technical Representation of Joints and Connections</i> <i>- Furniture Project critiques/ concept and overall design</i>	N/A
06.03.26	4	<i>In-Class Drawing (Manual Drawing)</i> <i>-Technical Representation of Joints and Connections</i> <i>- Furniture Project critiques/ detailed drawings 1/1- 1/5</i>	N/A
13.03.26	5	<i>In-Class Drawing (Manual Drawing)</i> <i>-Technical Representation of Joints and Connections</i> <i>- Furniture Project critiques/ detailed drawings 1/1-1/5</i>	N/A
20.03.26	6	- National Holiday	N/A
27.03.26	7	<i>In-Class Drawing (Manual Drawing)</i> <i>-Technical Representation of Joints and Connections</i> <i>- Furniture Project critiques drawings and posters</i>	N/A
	8	MIDTERM EXAM	N/A
10.04.26	9	<i>In-Class Drawing (Manual Furniture Drawing)</i> <i>-Production Drawings for Chair Design</i> <i>-Dimensioning and Annotation Standards</i> <i>- Furniture Project critiques (top, front, side views, sections and renders)</i>	N/A
17.04.26	10	QUIZ <i>-Production Drawings, Views and Renders of the Chair Design to be produced.</i> <i>-Finalized Presentation</i>	N/A
24.04.26	11	<i>In-Class Drawing (Manual Furniture Drawing)</i> <i>- Furniture Project critiques/ Design, Detailed drawings1/1-1/10</i>	N/A
1.05.26	12	National Holiday	N/A



DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

08.05.26	13	In-Class Drawing (Manual Furniture Drawing) -Section and Elevation Views for Furniture -Dimensioning and Annotation Standards - Furniture Project critiques/ Design, Detailed drawings1/1-1/10	N/A
15.05.26	14	- Furniture Project critiques/ Design, Detailed drawings1/1-1/10, Final Poster	N/A
22.05.26	15	- Last Critiques of Furniture Project / Design, Detailed drawings1/1-1/10, Final Poster	N/A
FINAL EXAM			

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

Grading: Midterm and final jury 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). **If total assessment grade is lower than 50, student needs to repeat the course.**

Assessment Methods and
Criteria :

METHODS	EFFECTS ON GRADING
In-Class Drawings	20%
Quiz	15%
Midterm Exam	25%
Final Project	40%

ECTS Workload Table :

ACTIVITIES	NUMBER	HOUR	WORKLOAD
Course Teaching Hours	13	4	52
Project Drawings	13	1	13
Quiz	1	4	4
Midterm Preparation	1	12	12
Midterm Exam	1	4	4
Final Preparation	1	15	15
Final Jury	1	4	4
Total Workload	0	0	104
Total workload/25			104/25
ECTS			4

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
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