

School of Fine Arts Design and Architecture / Architecture
2023 - 2024 Academic Year
MATERIAL and TECHNOLOGY
Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
MATERIAL and TECHNOLOGY	MIM1224120	Spring Semester	2+0	2	2
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Mustafa Adil KASAPSEÇKİN				
Name of Lecturer(s)	Assist.Prof. Pelin KARAÇAR				
Assistant(s)					
Aim	This course aims to inform students on different types of materials by means of focusing on the inter-relationships between products, material technologies and material performance.				
Course Content	This course contains; Metal technologies, Metal product examples, Plastic material technologies, Plastic product examples, Ceramic material technologies, Ceramic product examples, Ceramic product examples, Leather, Nano materials, Wood and other cellulose based materials, Paints and protectors, Paints and protectors, Material Selection, Material selection.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Selects the right materials for design projects.			16, 18, 9	A, E	
Can relate their designs with different materials and manufacturing techniques.			16, 18, 9	A, E	
Gain knowledge on technological developments, standards, environmental and recycling issues.			16, 18, 9	A, E	
Determines how material science and technology evolves with the advancement of technology.			16, 18, 9	A, E	
Teaching Methods	16: Question - Answer Technique, 18: Micro Teaching Technique, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, E: Homework				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Metal technologies.	Previewing book and lecture notes.			
2	Metal product examples.	Previewing book and lecture notes.			
3	Plastic material technologies.	Previewing book and lecture notes.			
4	Plastic product examples.	Previewing book and lecture notes.			
5	Ceramic material technologies.	Previewing book and lecture notes.			
6	Ceramic product examples.	Previewing book and lecture notes.			
7	Ceramic product examples.	Previewing book and lecture notes.			
8	Leather	Previewing book and lecture notes.			
9	Nano materials.	Previewing book and lecture notes.			
10	Wood and other cellulose based materials	Previewing book and lecture notes.			
11	Paints and protectors	Previewing book and lecture notes.			
12	Paints and protectors.	Previewing book and lecture notes.			
13	Material Selection.	Previewing book and lecture notes.			
14	Material selection	Previewing book and lecture notes.			
Evaluation Methods			Weight(%)		
Midterm Exam			50		
General Exam			50		

Resources
<p>Students are expected to take notes. Findık, F. (2010) Malzeme ve Tasarım Bilgisi. Seçkin Yayınevi-Ankara.</p> <p>Akkurt, S. (2007) Plastik Malzeme Bilimi Teknolojisi ve Kalıp Tasarımı. Birsen Yayınevi- İstanbul.</p> <p>Ashby, M, Johnson. K. (2002) Materials and Design: The art and science of materials, Butterworth-Heinemann, Burlington.</p> <p>Lefteri, C. (2014) Materials for Design. Lawrence King Publishing, London.</p> <p>Lefteri, C. (2004) Metals-Materials for Inspirational Design, Rota Vision</p> <p>Toydemir, N., Gürdal, E., Tanaçan, L. (2000) Yapı Elemanı Tasarımında Malzeme. Literatür yayınları: 39.</p> <p>Abel, C.(2004) Architecture, Technology and Process. Elsevier: Burlington. ISBN 0 7506 3792 7.</p>