

**School of Fine Arts Design and Architecture / Interior Architecture and Environmental Design**  
**2023 - 2024 Academic Year**  
**MATH for DESIGNERS**  
**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
MATH for DESIGNERS	ICT1110004	Fall Semester	2+2	3	4
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Assist.Prof. Tahir AKKOYUNLU				
<b>Name of Lecturer(s)</b>	Lect.Dr. Işim DEMİRİZ				
<b>Assistant(s)</b>					
<b>Aim</b>	Understanding the mathematical methods and terms that are needed as a designer.				
<b>Course Content</b>	This course contains; Mathematical Thinking,Atoms of Arithmetics: Binary Systems, ,Trigonometric functions,Functions,Trigonometry ,Calculus ,Calculus,Probability & Statistics ,Calculus, derivative,Calculus, derivative,Calculus, introduction to integral,Calculus, integral,Statistics and basic concepts,Golden ratio, Fibonacci, Fractal geometry.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
2) will know ratio, proportion and symmetry,			12, 9	A, E	
1) will know the basic terminology about mathematics,			12, 9	A, E	
3) will know area, volume and the centre of gravity calculations,			12, 9	A, E	
4) will be able to understand the role of mathematics in any design project,			12, 9	A, E	
5) can include mathematics in to his/her projects			12, 9	A, E	
<b>Teaching Methods</b>	12: Problem Solving Method, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam, E: Homework				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Mathematical Thinking				
2	Atoms of Arithmetics: Binary Systems,				
3	Trigonometric functions				
4	Functions				
5	Trigonometry				
6	Calculus				
7	Calculus				
8	Probability & Statistics				
9	Calculus, derivative				
10	Calculus, derivative				
11	Calculus, introduction to integral				
12	Calculus, integral				
13	Statistics and basic concepts				
14	Golden ratio, Fibonacci, Fractal geometry				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		50			
General Exam		50			

<b>Resources</b>
To be distributed by the lecturer.1)Khan Academy Web Site 2)Hemenway, Priya, The Secret Code: The Mysterious Formula that rules art, nature and science. Cologne: Evergreen 3)Mathematics Illuminated Web Site