School of Fine Arts Design and Architecture / Urban Design and Landscape Architecture

2023 - 2024 Academic Year

MATH for DESIGNERS

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
MATH for DESIGNERS	KTP1110004	Fall Semester	2+2	3	4

Prerequisites Courses	
Recommended Elective Courses	
Language of Instruction	Turkish
Course Level	First Cycle (Bachelor's Degree)
Course Type	Required
Course Coordinator	Assist.Prof. Tahir AKKOYUNLU
Name of Lecturer(s)	Lect.Dr. Işım DEMİRİZ
Assistant(s)	
Aim	Understanding the mathematical methods and terms that are needed as a designer.
Course Content	This course contains; Mathematical Thinking,Atoms of Arithmetics: Binary Sistems, ,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.

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
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

Teaching Methods	12: Problem Solving Method, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam, E: Homework

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	Mathematical Thinking	
2	Atoms of Arithmetics: Binary Sistems,	
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	

Evaluation Methods	**Weight(%)**
Midterm Exam	50
General Exam	50

Resources

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