AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Basic Mathematics								
Course Code	MKE109		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Mathematical competence, application of thinking patterns (logical and spatial thinking) and presentation (formulas, models, structures, graphs, diagrams) are aimed to develop skills.								
Course Content	Numbers, Algebra, Problems, Logical Ability, Geometry								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Problem Solving								
Name of Lecturer(s)	Ins. Neslihan BİLİNMEZ								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Basic Mathematics course notes

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic Concepts (Numbers), Rational Numbers and Decimal Fractions, Number Systems and the Concept of Digits
2	Theoretical	Prime Factors and Exact Divisor Number, Divide and Divide Rules
3	Theoretical	Exponential numbers and equations
4	Theoretical	Root numbers and operations
5	Theoretical	Equations with first order unknown and second order unknown.
6	Theoretical	Converting to first and second order equation
7	Theoretical	Factorization and Identities
8	Theoretical	Ratio - Proportion, Arithmetic and Geometric Mean
9	Intermediate Exam	Mid-term Exam
10	Theoretical	Trigonometry, Angles and Sine Theorem
11	Theoretical	Functions
12	Theoretical	Permutation, Combination
13	Theoretical	Geometric Concepts, Angles in Line, Polygons and Quadrilaterals
14	Theoretical	Circle, Analytical Geometry, Solid Bodies
15	Theoretical	Problem Solutions
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	14	1	1	28
Midterm Examination	1	7	1	8
Final Examination	1	7	1	8
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Learn the theory and applications of numbers.
2	To be able to comprehend the topics related to exponential and rooted expressions

3	To be able to comprehend the equations and inequalities and produce solutions to problems related to the field
4	Identity and factorization, to be able to comprehend the ratio-ratio issues, to produce solutions to problems related to the field
5	Learn the theory and applications of geometry.

Programme Outcomes *(Machinery)*	
1	To be able to know general properties and usage areas of industrial materials and make selection.
2	Design of machine elements.
3	To be able to make production using machining and welding machines without machining.
4	To be able to make measurement and quality control processes with machine tools for measuring and control equipment.
5	To be able to make necessary corrections in order to determine the mistakes by using the necessary non-destructive test methods in welded parts and to eliminate these mistakes.
6	Preventive measures to prevent the occurrence of these faults by preliminarily determining the faults that will occur in the machines as statistical data and to make necessary interventions in case of breakdown.
7	They can make drawings of work pieces on CAD station and apply them on CNC looms. Ability to operate and use CAD / CAM and AUTOCAD package programs.
8	To be able to transfer engineering science and technology to practice by making calculations in the direction of scientific principles.
9	It can repair the elements in pneumatic and hydraulic systems which are indispensable elements of automatic control systems and can regulate their work.
10	The student who is trained as a machine technician during the whole program knows that industrial task definition in the field of work is error finding, problem solving, decision making, planning of functions and activities and they can be achieved by aiming to acquire these characteristics.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	2	3	5	3	4
P2	3	2	3	3	3
P3	5	3	4	3	5
P4	3	4	3	3	4
P5	2	3	4	3	3
P6	4	2	3	3	4
P7	2	5	4	3	5
P8	3	3	3	3	3
P9	5	5	5	3	4
P10	4	4	4	3	5