AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title			Vocational Mathematics					
Course Code			MKE102		Couse Level		Short Cycle (Associate's Degree)	
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course			To gain the ability to analyze mathematical expressions in order to make the necessary calculations in the profession					
Course Content			The aim of this course is to provide the students with the knowledge of basic mathematics as well as practical mathematics knowledge in order to be able to understand the vocational courses based on mathematics more easily and to solve the numerical operations there.					
Work Placement			N/A					
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, 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	Vocational Mathematics Lecture Notes

Week	Weekly Detailed Course Contents	
1	Theoretical	Numbers and arithmetic operations
2	Theoretical	Rational numbers
3	Theoretical	Exponential and rooted expressions
4	Theoretical	Ratio and proportion
5	Theoretical	Simple equations and solutions
6	Theoretical	Equation problems
7	Theoretical	triangles
8	Intermediate Exam	MIDTERM EXAM
9	Theoretical	Rectangles and Polygons
10	Theoretical	Volume and Area Accounts
11	Theoretical	Volume and Area Accounts in Profession
12	Theoretical	Basic Trigonometric Information
13	Theoretical	The use of mathematics in the profession
14	Theoretical	The use of mathematics in the profession
15	Theoretical	The use of mathematics in the profession
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	4	56
Assignment	10	0	3	30
Individual Work	2	0	4	8
Midterm Examination	1	2	1	3
Final Examination	1	2	1	3
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4

25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Knows numbers and can make transactions with numbers
2	Make exponential and rooted calculations
3	Calculate the circumference of geometric shapes
4	Calculate the areas of geometric shapes
5	Can establish and solve equations
6	Calculate the volumes of prismatic parts.
7	Make basic trigonometric calculations
8	Make basic calculations in machine profession.
9	Proportional calculations
10	Calculate area measurements and make professional applications

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	L6	L7	L8	L9	L10
P1	2	2	5	3	5	2	2	5	2	3
P2	3	3	3	2	2	3	3	3	3	2
P3	3	4	2	3	3	2	5	2	4	3
P4	2	2	5	4	2	3	2	3	3	2
P5	3	5	2	3	3	4	1	2	5	4
P6	4	5	4	2	2	1	3	3	2	2
P7	3	5	3	1	3	3	2	2	3	3
P8	2	5	2	3	2	2	2	3	2	5
P9	3	3	4	2	3	5	3	2	3	2
P10	5	2	3	4	2	2	1	3	4	3