



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Applications of Mathematics							
Course Code		MKE190		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (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), Demonstration, Discussion, Problem Solving					
Name of Lecturer(s)		Assoc. Prof. Murat ÜNVERDİ							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Applications of Mathematics Lecture Notes
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Week	Weekly Detailed Course Contents	
1	Theoretical	Basic Concepts (Numbers), Rational Numbers and Decimal Fractions, Number Systems and Step Concept
2	Theoretical	Prime Factors and Exact Divisor Number, Divide and Divide Rules
3	Theoretical	Factorial, Obeb and Okek
4	Theoretical	Equation Solving
5	Theoretical	Simple Inequalities and Sorting, Absolute Value
6	Theoretical	Exponential Numbers, Square Root Numbers, Factorization and Identities
7	Theoretical	Ratio Proportion
8	Theoretical	Number, Fraction, Page, Hour, Age, Percentage, Profit and Loss, Interest, Mixture, Speed and Movement, Worker and Pool Problems
9	Intermediate Exam	Mid-term Exam
10	Theoretical	Sets, Functions
11	Theoretical	Modular Arithmetic
12	Theoretical	Permutation, Combination, Possibility
13	Theoretical	Digital Logic
14	Theoretical	Geometric Concepts, Line Angles, Polygons and Rectangles
15	Theoretical	Circle, Analytical Geometry, Solid Bodies
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	14	0	1	14
Midterm Examination	1	3	1	4
Final Examination	1	3	1	4
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Learn the theory and applications of numbers.
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2	Learn the theory and applications of algebra.
3	Learn the theory and applications of problems.
4	Learn the theory and applications of logical ability.
5	Learn the theory and applications of geometry.

Programme Outcomes (Automotive Technology)

1	To be able to interpret and evaluate data, identify problems, analyze them, and develop evidence-based solutions by using basic knowledge and skills in the field.
2	Must be able to choose and effectively use the modern techniques, tools and information technologies necessary for field related applications.
3	Must be able to gain practical skills by examining relevant processes in industry and service sector on site.
4	They must be able to produce solutions, take responsibility for teams or do individual work when they encounter situations unforeseen in the field related applications.
5	Awareness of the need for lifelong learning; it must be able to follow the developments in science and technology and to constantly renew itself.
6	Must be able to use computer software and hardware at the basic level required by the field
7	Must have job security, worker health, environmental protection knowledge and quality awareness.
8	He must possess a level of foreign language knowledge that is capable of following the innovations in his area of expertise and communication techniques.
9	Must be able to acquire basic theoretical and practical knowledge about the field in mathematics, science and basic engineering.
10	It should have the ability to plan the processes / processes of the Automotive Program to meet the expectations of the sector.
11	To be able to design the systems and components related to the field by using technical drawing, computer aided drawing, designing using simulation programs and using various softwares, to be able to make basic sizing calculations, to be able to master professional plans and projects.

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	4	4	4	3	3
P2	4	4	4	3	4
P3	4	5	4	3	3
P4	5	4	4	4	4
P5	4	4	3	3	3
P6	4	3	3	4	4
P7	4	4	3	3	3
P8	2	3	4	4	4
P9	3	4	4	3	3
P10	4	3	3	4	4
P11	4	4	4	3	3

