



AYDIN ADNAN MENDERES UNIVERSITY
AYDIN VOCATIONAL SCHOOL
MECHANICAL AND METAL TECHNOLOGY
MACHINERY
COURSE INFORMATION FORM

Course Title	Machine Elements								
Course Code	MKE207			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	It is aimed to gain the competencies to comprehend basic strength information to be encountered in design, to classify machine elements according to their properties, to calculate the strength of machine elements and to select suitable elements.								
Course Content	Dismountable fasteners, Shafts and axles, Bearing elements								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Case Study, Problem Solving								
Name of Lecturer(s)	Ins. Alpaslan BAŞARIK, Ins. Mehmet TEMEL								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	70

Recommended or Required Reading

1	Makine Elemanları Ders Notları
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Week	Weekly Detailed Course Contents	
1	Theoretical	Non-detachable fasteners
2	Theoretical	Non-detachable fasteners
3	Theoretical	Non-detachable fasteners
4	Theoretical	Non-detachable fasteners
5	Theoretical	Non-detachable fasteners
6	Theoretical	Non-detachable fasteners
7	Theoretical	Non-detachable fasteners
8	Theoretical	Non-detachable fasteners
9	Intermediate Exam	Midterm
10	Theoretical	Detachable fasteners
11	Theoretical	Shafts and axles
12	Theoretical	Shafts and axles
13	Theoretical	Shafts and axles
14	Theoretical	Bearing elements
15	Theoretical	Bearing elements
16	Final Exam	Final Examination

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	5	0	1	5
Term Project	5	0	1	5
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	It will be able to size non-detachable fasteners and make control account.
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2	It will be able to size and control the removable fasteners.
3	It will be able to size the shaft and axle and control calculate
4	The bearing elements will be able to resize and control the calculate
5	Defines the effects of load and the forces acting on elements of the machine.

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
P1	5	4	5	5
P2	5	5	5	5
P3	5	4	5	5
P4	5	5	5	5
P5	5	4	4	5
P6	4	5	4	5
P7	4	5	4	4
P8	4	5	4	4
P9	4	5	5	4
P10	5	4	5	4

