



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

Course Title	Ergonomics								
Course Code	MKE257			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Evaluation of ergonomically designed machines and parts.								
Course Content	The importance of defining ergonomics, Human Factors and Business Productivity								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study								
Name of Lecturer(s)	Ins. Alpaslan BAŞARIK, Ins. Aydin ONGAN								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	70

Recommended or Required Reading	
1	Ergonomi ders notları

Week	Weekly Detailed Course Contents	
1	Theoretical	Human anatomy and product
2	Theoretical	Human anthropometric structure and product
3	Theoretical	Lighting and effects
4	Theoretical	Artificial lighting and natural lighting
5	Theoretical	Working environment and air movements
6	Theoretical	Personal protectors and clothing
7	Theoretical	Personal protectors and clothing
8	Theoretical	Noise in the working environment
9	Intermediate Exam	Midterm Examination
10	Theoretical	Ergonomic work bench measures
11	Theoretical	Ergonomics and worktable alignment
12	Theoretical	Ergonomic machine measurements
13	Theoretical	Ergonomics and machine compatibility
14	Theoretical	Ergonomic movements
15	Theoretical	The results of the ergonomic movement
16	Final Exam	Final Examination

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	10	0	2	20
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

\*25 hour workload is accepted as 1 ECTS

Learning Outcomes	
1	Know working areas of ergonomics and create an ergonomic working environment
2	Knows anthropometry and anthropometric human measurements.
3	To be able to adapt to human, machine and environment



4	Knows ergonomics and work bench compatibility.
5	Design ergonomic products. Takes care of ergonomic movements in the workshop.

### 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.

