



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

Course Title	Research Methods and Techniques								
Course Code	İŞT215			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	This derste student; to gain proficiency in research.								
Course Content	Selecting research subjects, Performing resource research, Evaluating research results, Converting the results of the research report, Preparing presentation, Making presentations								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study								
Name of Lecturer(s)	Ins. Aydın ONGAN, Ins. Aylin DİLEK, Ins. Halil ŞİMŞEK								

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

Recommended or Required Reading	
1	Bilimsel Araştırma Yöntemi – Prof Dr. Niyazi KARASAR

Week	Weekly Detailed Course Contents	
1	Theoretical	Choosing Research Topics
2	Theoretical	Choosing Research Topics
3	Theoretical	Choosing Research Topics
4	Theoretical	Do a Resource Survey
5	Theoretical	Do a Resource Survey
6	Theoretical	Do a Resource Survey
7	Theoretical	Evaluation of Research Results
8	Theoretical	Araştırma Sonuçlarını Değerlendirme
9	Intermediate Exam	midterm
10	Theoretical	Conversion of Research Results to Report
11	Theoretical	Conversion of Research Results to Report
12	Theoretical	Making a Presentation
13	Theoretical	Making a Presentation
14	Theoretical	Making Presentations
15	Theoretical	Making a Presentation
16	Final Exam	Final Examination

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	35	0	1	35
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = ECTS	3

\*25 hour workload is accepted as 1 ECTS

Learning Outcomes	
1	Explain the basics of scientific research.



2	Explain the types of scientific research.
3	Explain the ethical principles in scientific research.
4	Report the study.
5	Explain the rights and responsibilities of the researcher and the research participant.

#### 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.

