



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Unusual Production Methods							
Course Code		MKE208		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Electro Erosion and Wire Erosion Benches are aimed to gain proficiency in production.							
Course Content		Parts of Electro erosion Machine, Operation Principles of Electro Errosion Machine, Machine Coordinate Axes, Reference Points, Control Panel Types, Control Panel Buttons and Properties, Electro Erosion Machine Techniques.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Case Study					
Name of Lecturer(s)		Assoc. Prof. Ali Kemal ÇAKIR							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Alışılmamış Üretim Yöntemleri Ders Notları
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Week	Weekly Detailed Course Contents	
1	Theoretical	Characteristics of the electric erosion counter, Parts of the electric erosion counter, Working principles of electric erosion counter
2	Theoretical	Counter coordinate axes, Reference points, Control panel types
3	Theoretical	Control panel keys and properties, Electro erosion machine processing methods, Electrode materials
4	Theoretical	Dielectric fluids, Electrode and part positioning methods, Part reset methods
5	Theoretical	Electro erosion machine operation modes, Electro erosion machine operation parameters
6	Theoretical	Sample machining applications
7	Theoretical	Characteristics of wire erosion counter, Parts of wire erosion counter, Working principles of wire erosion counter
8	Theoretical	Counter coordinate axes, Reference points, Control panel types, Control panel keys and properties
9	Intermediate Exam	Midterm Examination
10	Theoretical	Counter programming methods, Wire erosion machine processing methods, Cutting wire materials and properties
11	Theoretical	Wire bonding methods, Wire positioning options Workpiece bonding methods, Cutting fluid types and properties
12	Theoretical	Programming principles in CNC wire erosion machines Positioning systems, Absolute positioning system, Incremental positioning system
13	Theoretical	ISO Processing and preparation commands, Wire direction selection, Diameter compensations and offset (offset)
14	Theoretical	Setting the slope angle, Simulation options, Power reduction functions in corners and slopes, Generator values editing operations
15	Theoretical	Examples of machining
16	Final Exam	Final Examination

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	5	0	1	5
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	Prepare the electric erosion counter for work
2	Determine the machining parameters and process the parts
3	Using CNC wire erosion counter and control panel
4	Choosing and connecting cutting wire
5	Making simple absolute and incremental program
6	Simulating and machining parts

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
P1	4	5	5	4	5	5
P2	4	4	5	4	5	4
P3	4	4	5	4	5	3
P4	5	4	4	4	4	5
P5	4	4	4	4	4	4
P6	3	4	4	5	5	4
P7	4	4	4	4	4	4
P8	4	5	4	4	4	4
P9	3	3	4	5	5	5
P10	4	4	4	5	5	4

