AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Computer Aieded Machine Tools						
Course Code	MTR204		Couse Level	Short Cycle (Associate's Degree)			
ECTS Credit	6	Workload	99 *(Hours)*	Theory	3	Practice	1	Laboratory	0
Objectives of the Course	In this course, CNC lathe and CNC milling machine processing of competence is intended to bring work pieces programmed counter tops.						
Course Content	Basic features of CNC lathe machines, used programming and codes used in the program, measurement systems and simulation program						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Problem Solving			
Name of Lecturer(s)							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

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Week	Weekly Detailed Course Contents	
1	Theoretical	CNC lathe, CNC lathe, who has spent parts of the found properties, principles of work, CNC turning, who has spent over the coordinate axes, reference points, control panel, Control panel keys and features, the cutter and workpiece material relationship
2	Theoretical	Cutter types, properties and applications, linking the team compensated settings, the zero elements, Parts and tooling points, Resetting reset Qty. to handle the elements used in the features, track team
3	Theoretical	Elements and properties used in the team, giving the angle and the depth of cut, process advances, on the team depth account, rough handling Binding apparatus, control tools, workpiece Binding reset methods, fundamentals of programming of CNC turning looms a.Positioning systems,
4	Theoretical	b. Operation and commands that help prepare commands, c., d. custom commands, CNC lathe stands and motion systems, coordinate systems, types of shapes, Movement Control, axes
5	Theoretical	CNC programming using a) facing the tornado cycles cycle, b) Longitudinal rough turning cycle c) Radius chamfer cycle d) grooving cycle to cycle the channel f) rough translation) on your profile Space g) deep hole drilling cycle h) threading cycle, the lower the lower structure of the CNC programming technique, using the lower program programming programming services
6	Theoretical	The definition and importance of simulation, simulation programs, run programs, CNC looms in the alarm options
7	Theoretical	Error codes used in programming, the unit of measure and control instruments over the progress of the mode settings, measurement control equipments, measuring instruments of measuring and control Any influencing factors, the purpose of measuring and Control equipment for measuring, errors that may occur and causes,
8	Theoretical	Comparison of measuring systems and measuring instruments, measurement, measuring, clocks and comparators, surface roughness, flatness and roundness, Straightness measurement, CNC milling machine, CNC milling, who has spent parts of the found properties, CNC milling machine working principles, who has spent over the coordinate axes, reference points, control panel, Control panel keys and properties
9	Theoretical	Relationship between the cutter and workpiece material, cutting varieties, properties and applications, linking the team compensated settings, the zero elements, Parts and tooling points, used elements in resetting properties
10	Theoretical	Reset Qty. to handle track team, the team used in setting the depth of cut, the operation element and the properties, the angle and the depth of the Team resulted in roughing account, Binding apparatus, control tools, workpiece Binding reset methods, fundamentals of programming CNC milling machine looms a) positioning systems,

11	Theoretical	b) processing and preparation commands special commands commands that help d), c) CNC milling machine looms motion systems, coordinate systems, types of shapes, Movement Control, axes
12	Theoretical	CNC milling, Groove milling cycles by using the conversion of b Rectangle mobile programming a)) circular Pocket machining cycle c) Hole drilling cycle d) tapping cycle e) Hole expansion cycle, Lower the bottom Groove milling programming CNC programming technique, using the lower program structure, programming
13	Theoretical	CNC milling, Groove milling cycles by using the conversion of b Rectangle mobile programming a)) circular Pocket machining cycle c) Hole drilling cycle d) tapping cycle e) Hole expansion cycle, Lower the bottom Groove milling programming CNC programming technique, using the lower program structure, programming
14	Theoretical	Error codes used in programming, the unit of measure and control instruments over the progress of the mode settings, measurement control equipments, measuring instruments of measuring and control Any influencing factors, the purpose of measuring and control equipment for measuring, errors that may occur and causes, the measure comparing, measuring instruments and systems, flatness, Linearity and Measurement times and comparators, measuring roundness, surface roughness,

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Lecture - Practice	14	0	1	14
Laboratory	7	2	1	21
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
			Total Workload (Hours)	99
			[Total Workload (Hours) / 25*] = **ECTS**	4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	1. Prepare work, CNC turning tezgâhını
2	2. Write the program for CNC lathe benches
3	3. CNC lathe machine productionyfood,
4	4. Prepare work, CNC milling machine fezgâhını
5	5. Write the program for CNC milling machine
6	6. Make production CNC milling machine Ttzgâhında

Programme Outcomes *(Mechatronics)*

1	TECHNICAL FOREIGN LANGUAGE
2	BASICS OF MECHATRONICS
3	TECHNICAL DRAWING
4	DOING BASIC MECHANIC PROSESES
5	CHOOSE THE MATERIALS
6	DOING MECHANICAL SYSTEM DESIGN
7	SET UP A HYDRAULİC OR PNEUMATICSYSTEMS
8	DOING COMPUTER AIDED MECHANICAL DESİGN
9	USINGFLEXIBLE PRODUCING SYSTEMS
10	USINGCOMPUTER AIDEDMACHINE TOOLS
11	DOING ELECTRICAL AND ELECTRONICAL
12	SET UP ELECTRICAL AND ELECTRONICAL CIRCUITS
13	SET UP LOGICAL CIRCIUTS
14	DOING COMPUTER AIDED ELECTRONICAL CIRCUITSDESİGN
15	SET UP ELECTRICAL MOTORS
16	SET UP MICROCONTROLLER CIRCIUTS
17	SET UP CONTROL SYSTEMS
18	COMMUNICATE CONTROL SYSTEMS
19	DOING INDUSTRIAL ROBOTIC PROGRAMMINGAND MAINTENANCE
20	WRITING COMPUTER PROGRAMME

21	Ability to use the methods and techniques of career planning and discussing the effects of character traits on career preferences.
22	Ability to plan a career in their own profession.

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
P10	5	5	5	5	5	5