AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Production Methods								
Course Code	MKE255		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Information about casting methods and production techniques are given.								
Course Content	Casting and casting methods								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Case Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Üretim Yöntemleri ders notları

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to Production Methods
2	Theoretical	Model and Model Design
3	Theoretical	Casting and Molding Methods
4	Theoretical	Cores
5	Theoretical	Sand Based Mold and Core Materials
6	Theoretical	Sand Molding Machines
7	Theoretical	Melting and Casting
8	Theoretical	Solidification
9	Intermediate Exam	Midterm Examination
10	Theoretical	Runner, Feeder, Extractor and Coolers
11	Theoretical	Finishing
12	Theoretical	Casting Defects and Quality Control
13	Theoretical	Design of Casting Parts
14	Theoretical	Iron Based Bulk Materials
15	Theoretical	Non-Ferrous Materials, Molding Examples
16	Final Exam	Final Examination

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	10	0	1	10
Project	10	0	1	10
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	To have knowledge about production methods
2	To have knowledge about sand casting and other casting methods

3	Solidification, Casting Alloys, Defining Casting Errors
4	To have knowledge about welding methods
5	To have knowledge about machining methods

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
P1	3	4	5	3	2
P2	3	3	3	4	3
P3	3	5	4	2	5
P4	3	4	5	5	4
P5	3	3	2	4	3
P6	3	2	5	5	2
P7	3	5	4	5	4
P8	3	4	5	2	2
P9	3	3	5	5	5
P10	3	5	4	4	3