

CNC MILLING MACHINE TECHNOLOGY

1	Course Title:	CNC MILLING MACHINE TECHNOLOGY
2	Course Code:	MKNZ208
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ABDİL KUŞ
15	Course Lecturers:	Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları
16	Contact information of the Course Coordinator:	abdilkus@uludag.edu.tr, Uludağ Üniversitesi, Teknik Bilimler MYO, Görükle-BURSA Tel: 2942344
17	Website:	
18	Objective of the Course:	This course is preparation for work with the CNC milling machine, the program aimed to gain the competencies to make writing CNC programs and production.
19	Contribution of the Course to Professional Development:	Developing students' competencies in CNC Milling technologies and programming
20	Learning Outcomes:	
	1	To prepare work for the CNC Milling machine
	2	Write programs for CNC Milling Machine
	3	Production in the CNC machines
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	CNC Milling machine features and parts.	Operation principles of the CNC Milling machine.
2	Types of control panels, buttons, and features.	Coordinate axes of the machine and reference points.
3	Cutter types, properties and possible uses.	Tool compensation settings, tool holders.
4	Resetting properties of the elements used.	Reset the track to be processed according to the team.

5	Tool overall processing account.	Cutting depth, angle, and progress intreatment.
6	CNC Milling programming principles machines.	Processing and Preparation instructions.
7	Repeating courses and midterm exam	-
8	CNC Milling machines motion and coordinate system.	CNC milling machines application.
9	CNC programming using cycles.	CNC milling machines application.
10	Sub-programming technique and structure.	CNC milling machines application.
11	Sub-programming technique and structure.	CNC milling machines application.
12	CNC machines in the alarm and error codes.	CNC milling machines application.
13	Measuring and control	CNC milling machines application.
14	Measuring and control	CNC milling machines application.
22	Textbooks, References and/or Other Materials:	<p>1-CNC milling operation manual book, 2-CNC milling usage manual book, 3-CNC Milling machine 4-Course notes 5-Gülesin, M., Güllü, A., Avcı, Ö., Akdoğan, G., "CNC Torna ve Freze Tezgahlarının Programlanması", Asil Yayın Dağıtım, Ankara, 2008.</p> <p>COURSE EQUIPMENT: - CNC Milling machine, cutting tools, experiment parts, quality and measurement equipments.</p>
23	Assesment	
TERM LEARNING ACTIVITIES		NUMBER
Midterm Exam		1
Quiz		0
Home work-project		1
Final Exam		1
Total		3
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Measurement and evaluation are carried out according to the principles of Bursa Uludağ University Associate and Undergraduate Education Regulation.
24	ECTS / WORK LOAD TABLE	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	1	12.00	12.00
Homeworks	2	10.00	20.00
Projects	2	15.00	30.00
Field Studies	0	0.00	0.00
Midterm exams	1	1.00	1.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			121.00
Total work load/ 30 hr			4.00
ECTS Credit of the Course			4.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	1	0	2	0	1	0	1	0	2	0	3	0	0	0	0
ÖK2	4	0	5	0	3	0	2	0	4	0	4	0	0	0	0	0
ÖK3	0	3	0	4	0	5	0	3	0	5	0	3	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							