

VOLUME MOLD DESIGN

1	Course Title:	VOLUME MOLD DESIGN	
2	Course Code:	MRKZ204	
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):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	To be successful in Computer Aided Drawing I and Computer Aided Drawing II courses	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Öğr.Gör. ERHAN KARA	
15	Course Lecturers:	Bursa Uludağ üniversitesi Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları	
16	Contact information of the Course Coordinator:	erhankara@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	Knows the types of machines used in volume molding and the molding methods for plastic parts. Designs volume molds.	
19	Contribution of the Course to Professional Development:	Performs design applications by effectively using the software and programs required for mold design. Selects appropriate materials for the parts used in mold design. Explains the manufacturing methods of mold elements.	
20	Learning Outcomes:		
		1	Knows the types of volume molding and manufacturing methods.
		2	Knows the function and materials of the elements that make up volume patterns.
		3	Designs injection molds
		4	Designs metal injection molds
		5	Designs blow molds.
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Volume molds and general design criteria, production of polymers, aluminum and iron-based materials by mold making method	Examining existing patterns	

2	Polymer volume molding, Compression, Transfer, Injection, Extrusion, Blow, Centrifugal, Vacuum, etc. molding methods.	Examining existing patterns
3	Polymer volume molding, Compression, Transfer, Injection, Extrusion, Blow, Centrifugal, Vacuum, etc. molding methods	Examining existing patterns
4	Introduction of volumetric mold elements and materials	Examining existing patterns
5	Runner design in injection molds, Problems that occur in the injection process, their causes, solutions,	Computer application
6	Injection mold design	Computer application
7	Injection mold design	Computer application
8	Injection mold design	Computer application
9	Injection mold design	Computer application
10	Metal injection mold design	Computer application
11	Metal injection mold design	Computer application
12	Metal injection mold design	Computer application
13	Blow mold design	Computer application
14	Blow mold design	Computer application
22	Textbooks, References and/or Other Materials:	1-Yakup ERİŞKİN, Hacim Kalıpcılığı, Milli Eğitim Basımevi, İstanbul, 1980 2-AKKURT, S., KILIÇ A.R.; "Plastik Enjeksiyon Kalıplarının İncelenmesi" Makine-Metal Teknolojisi Dergisi (Aralık 1999) 3-ALTUNBAĞ F.,ALKAN F.,AY M. Hacim Kalıp Tasarımı ve Uygulama (Bitirme Tezi),2011
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	Assessment and evaluation are carried out in accordance with the principles of the Bursa Uludağ University Associate and Undergraduate Degree Education and Training Regulations. For this course, one midterm exam and one final exam will be administered. In addition, one project assignment will be given.	

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	0	0.00	0.00
Homeworks	1	30.00	30.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	12.00	12.00
Others	0	0.00	0.00
Final Exams	1	22.00	22.00
Total Work Load			120.00
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	4	0	0	4	3	0	3	0	0	0	4	4	2	2	0	0
ÖK2	4	0	4	3	3	0	0	3	0	0	4	4	0	2	0	0
ÖK3	3	0	0	5	3	0	3	3	0	0	5	4	3	3	0	0
ÖK4	0	0	0	5	3	0	3	3	0	0	5	4	3	3	0	0
ÖK5	0	0	0	5	3	0	3	3	0	0	5	4	3	3	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			