

DEPARTMENT OF MATERIALS SCIENCE AND TECHNOLOGY
COURSE SYLLABUS

Course Details					
Code		Academic Year		Semester	
MWT308		3		6	
Title		T	A	L	ECTS
Powder Metallurgy		2	2		6
Language	German				
Level	Undergraduate	X	Graduate	Postgraduate	
Department / Program	Department of Material Science and Technology (German)				
Forms of Teaching and Learning	Face to Face				
Course Type	Compulsory		Elective	X	
Objectives	Powder metallurgy (PM) is a branch of metallurgy involved in the production of metal and ceramic powders and components thereof. Students are basically at least get to know three stages of production: Powder extraction, - shaping and compaction, - Solidification by sintering.				
Content	Powder Production, Mechanical Alloy, Coaxial Pressing; single-sided, double-sided, isostatic pressing, sintering; Vacuum sintering, hot isostatic pressing, liquid phase sintering				
Prerequisites	-				
Coordinator	-				
Lecturer(s)	Asist Prof.Dr. Çağatay Elibol				
Assistant(s)	-				
Work Placement	-				
Recommended or Required Reading					
Books / Lecture Notes					
Other Sources	<ul style="list-style-type: none"> • Klar, E.,Fesko, J.W., Powder Metallurgy, ASM Handbook, Vol. 7., Ohio, 1991. • Övecoglu, L, ITU Metallurgie und Werkstofftechnik, Lecture Notes 				
Additional Course Material					
Documents					
Assignments					
Exams					
Course Composition					
Mathematics und Basic Sciences				%	
Engineering				%100	

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Engineering Design		%
Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge		%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	1	40
Quiz		
Assignments		
Attendance		
Recitations		
Projects		
Final Exam	1	60
Total		100

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	15	2	30
Self-Study	7	10	70
Assignments	4	8	32
Presentation / Seminar Preparation			
Midterm Exam	1	2	2
Recitations	15	1	15
Laboratory	15	2	15
Projects			
Final Exam	1	2	1
Total Work Load			181
ECTS Points (Total Work Load / Hours)			6

Learning Outcomes

1	Powder metallurgy (PM) is a branch of metallurgy involved in the production of metal and ceramic powders and components thereof. Students are basically at least get to know three stages of production like Powder extraction, shaping and compaction, Solidification by sintering.
2	
3	
4	
5	

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11								
12								
Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High							
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Compiled by:	Res. Asst. Burak Evren							
Date of Compilation:	25.04.2022							