



Code and Name: FİZ5460 ADVANCED METAL PHYSICS

Unit: Graduate School of Natural and Applied Sciences

Detail: Period: 2023-2024 Status: Optional Class: 1 Credits: 2-2-0-3 ECTS: 6 Language: Turkish

INSTRUCTOR

Title, Name and Surname:

Phone:

Email:

Social Account:

Student Day and Time:

COURSE ASSISTANT

Title, Name and Surname:

Phone:

Email:

Social Account:

Student Day and Time:

Lessons Weekly Program:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Rendering:
Place:

YY: Physics Lab .

UE:

Purpose: Basic mechanical, static and dynamic sub-systems required in engineering education Gaining the structure

Material: 1) Bargel & Schulze (Translated by Güleç & Aran), *Materials Science*, İTÜ Publishing, 1995.
2) K. Onaran, *Materials Science*, Bilim Teknik Publishing, 1993.

Student Responsibility ;

Weekly Lesson Plan	Week	Topic	Method	
	1	Types of Materials	YY	
	2	Structural features of materials	YY	
	3	Crystals structure of Metals	YY	
	4	Crystal structure Defects in Metals	YY	
	5	Mechanical Properties in Metals	YY	
	6	Frenkel and Schottky Defect	YY	
	7	Linear defects ; Edge Dislocation, Screw Dislocation	YY	
	8	MIDTERM EXAM	YY	
	9	Stress, Tensile, Elasticity and modulus of shear	YY	
	10	Types of hardness measurement in metals	YY	
	11	Brinell Experiment Vickers Experiment, Rockwell Experiment	YY	
	12	Metals and Alloys	YY	
	13	Phase Diagrams in Metals	YY	
	14	Kinetic and Heat treatments in metals	YY	
Assessment and Evaluation	Method		Number	Weight
	Break Exam	Exam	1	%40
		Quiz	-	-
		Homework	-	-
		Project	-	-
			-	-
	General Exam		1	%60
Course Outcomes:	1	Elementary information about metals and their properties		
	2	Obtaining information about the usage areas of metals and the defects in metals		
	3			
	4			
	5			

Course-Specific Explanations:

UE: Distance Education; YY: Face-to-Face Education



T.C.
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Course Syllabus Form

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