



Code and Name: FİZ5130 THEORY OF PHASE TRANSFORMATIONS

Unit: Graduate School of Natural and Applied Sciences

Detail: Period: 2023-2024 Status: Optional Class: 1 Credits: 3-0-0-3 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: Providing Students with the Fundamental Mechanics, Statics, and Dynamics Background Necessary for Engineering Education.

Material: 1) Bargel&Schulze (Trans. Güleç&Aran) Material Information , ITU Publication, 1995. 2) K. Onaran, **Malzeme Bilimi**, Bilim Teknik Yayınevi, 1993.

**Student
Responsibility**
:

Weekly Lesson Plan	Week	Topic	Method	
	1	Types of Materials	YY	
	2	Structural Properties of Materials	YY	
	3	Crystal Structures of Metals	YY	
	4	Crystal Structures of Metals	YY	
	5	Crystal Structure Defects in Metals	YY	
	6	Frenkel and Schottky Defects	YY	
	7	Mechanical Properties of Metals	YY	
	8	Midterm Exam	YY	
	9	Stress, Tension, Elasticity, and Shear Modulus	YY	
	10	Types of Hardness Measurement in Metals	YY	
	11	Brinell Test, Vickers Test, Rockwell Test	YY	
	12	Phase Diagrams in Metals	YY	
	13	Phase Diagrams in Metals	YY	
	14	Kinetics and Heat Treatment in Metals	YY	
Assessment and Evaluation	Method		Number	Weight
	Break Exam	Exam	1	%5 0
		Quiz	-	-
		Homework	-	-
		Project	-	-
			-	-
	General Exam		1	%5 0
Course Outcomes:	1	Fundamental Knowledge on Metals and Their Properties		
	2	Gaining Knowledge on the Applications of Metals and Defects in Metals.		
	3			
	4			
	5			

Course-Specific Explanations:

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



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Course Syllabus Form

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