



Code and Name: FİZ5070 THEORY OF DISORDERED MATTER

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: To explain fundamental concepts for those interested in theoretical solid-state physics and to provide information on disordered systems.

Material: 1) M. Lifshits, S. A. Pastur and L. A. Pastur, Introduction to the Theory of Disordered Systems, A Wiley-Interscience Publication, John Wiley&Sons, 1988. 2) J.M Ziman, Models of Disorder, Cambridge University Press, Cambridge, 1979.

**Student
Responsibility**
:

Weekly Lesson Plan	Week	Topic			Method	
	1	Introduction to Ordered and Disordered Materials			YY	
	2	Elements of Band Theories of Solids			YY	
	3	Classification and General Properties of Disordered Systems			YY	
	4	Classification and General Properties of Disordered Systems			YY	
	5	Multiple Scattering Theory			YY	
	6	Multiple Scattering and Band Structure Calculation Methods			YY	
	7	Multiple Scattering and Band Structure Calculation Methods			YY	
	8	Midterm Exam			YY	
	9	Disordered Alloys			YY	
	10	Electronic Structure of Disordered Systems			YY	
	11	Electrons in Disordered Systems			YY	
	12	Band Structure of Periodic and Disordered Solids			YY	
	13	Band Structure of Periodic and Disordered Solids			YY	
	14	Amorphous and Liquid Semiconductors			YY	
Assessment and Evaluation	Method				Number	Weight
	Break Exam	Exam			1	%50
		Quiz			-	-
		Homework			-	-
		Project			-	-
					-	-
	General Exam				1	%50
Course Outcomes:	1	Fundamental Information on the Properties of Disordered Materials				
	2	Understanding the Electronic Structure of Disordered Systems				
	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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