



Code and Name:

FİZ5270 ADVANCED SOLID STATE PHYSICS APPLICATIONS

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

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Weekly

Program:

Rendering:

Face-to-face lessons per week 3 It will be done on an hourly basis.

Place:

YY: Face-to-face

UE: -

Purpose:

To conduct a detailed examination of Solid State Physics, which constitutes the foundation of applied physics.

Material:

Solid State Physics, Şakir AYDOĞAN, Solid State Physics J.R. HOOK

Student

Responsibility

Conducting Research Before and After the Lecture.

Weekly Lesson Plan

Week	Topic	Method
1	Superconductivity	YY
2	The Meissner effect	YY
3	Heat capacity	YY
4	Thermodynamics of superconducting transitions	YY
5	Behavior of solids at high temperatures	YY
6	Diyamagnetizma	YY
7	Paramagnetism	YY
8	Ferromagnetizma	YY
9	General repetition- Midterm Exam	YY
10	Antiferromagnetizma	YY
11	Alloys	YY
12	Applications of solid state physics in biomedical materials	YY
13	Solid Applications of State Physics in the Aircraft Industry	YY
14	Applications of solid state physics in engineering	YY

Assessment and Evaluation

Method		Number	Weight
Break Exam	Exam	Face	1
	Quiz	-	-
	Homework		
	Project	-	-
General Exam	Face	1	% 50

Course Outcomes:

1	Distinguish between crystalline and non-crystalline materials
2	Understands the importance of heat capacity modeling
3	Identifies solid materials according to their electrical properties
4	Understand the working mechanism in magnetic, superconducting materials
5	

Course-Specific Explanations:

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



T.C.
FIRAT UNIVERSITY
Course Syllabus Form

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