Code and Name:	**FİZ5110 INDUSTRIAL X-RAYS**
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: **The course will be conducted face-to-face for 4 hours per week.**

Place: **YY:** Faculty of Science, Department of Physics **UE:**

Purpose: **Providing Graduate Students with a Fundamental Background in X-Rays and Solid-State Physics..**

Material: **The course will be taught using books and lecture notes.**

Student Responsibility : **Students are required to attend at least 50% of the classes and submit assignments on time.**

Weekly Lesson Plan

Week	Topic	Method
1	Introduction of the course, Introduction of the weekly course topics, Purpose of the course	YY
2	General description and classification of X-rays	YY
3	To give information about experimental methods	YY
4	Bragg's law and the making of proof	YY
5	Types of atomic bounding	YY
6	Types of Bravais Lattices	YY
7	Types of defects in the structure	YY
8	Midterm Exam	YY
9	Photoelectric phenomenon	YY
10	Solid-state phase transitions	YY
11	Fermi Dirac and Bose Einstein models	YY
12	Explanation of similarities and differences between reflection, diffraction and Bragg's law	YY
13	Presentation and evaluation based on literature review	YY
14	General repetition and assessment of achievement	YY

Assessment and Evaluation

	Method		Number	Weight
Break Exam	Exam	Face to Face	1	% 50
	Quiz	It will not be done.	-	
	Homework	Activities will be given before and after the midterm exam.	2	
	Project	It will not be issued.	-	-
General Exam	Face to Face		1	% 50

Course Outcomes:

1	Konu ile ilgili genel bilgiye sahip olmak.
2	Learning the Course Content, Related Formulas, Equations, and Proofs.
3	Understanding the Applicability of Acquired Knowledge in Scientific Research.
4	Understanding the Applicability and Usability of the Course in Physics and Other Scientific Disciplines.
5	

Course-Specific Explanations:

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