



**Code and Name:** FİZ5230 SOLAR PHOTOBATTERIES

**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:** Face-to-face lessons per week 4 It will be done on an hourly basis.

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

**Purpose:** To enable graduate students to learn thin film vapor phase deposition techniques and introduce micro- and nanoscale surface coating technologies. The course aims to provide fundamental knowledge on the production of coatings, the effects of process parameters on coating structure, and coating characterization. Additionally, students are expected to gain a fundamental understanding of thin films, comprehend the significance of film preparation conditions, and evaluate the technological applications of thin films.

**Material:** The course will be taught using the book 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	The aim of the course, the introduction of the weekly course topics and the purpose of the course		YY	
	2	The concept and types of energy		YY	
	3	Definition, source and use of Solar Energy		YY	
	4	Current resistance diode and circuit elemanları		YY	
	5	Electric current, AC current, DC current, PN Joints		YY	
	6	General information about solar cells		YY	
	7	General information about solar panels		YY	
	8	VISA		YY	
	9	What is productivity and how to increase it		YY	
	10	Usage areas and technological importance of solar cells		YY	
	11	Production methods of solar cells		YY	
	12	Classification of solar cells and teknolojik öneminin ortaya koyulması		YY	
	13	Project design of solar cells		YY	
	14	General review and achievement evaluation		YY	
Assessment and Evaluation	Method			Number	Weight
	Break Exam	Exam	Face	1	% 50
		Quiz	It will not be done.	-	
		Homework	Activities will be given before and after the midterm exam.		
		Project	It will not be issued.	-	-
	General Exam	Face		1	% 50
Course Outcomes:	1	Electrical of thin films , magnetic and Structural features n learning.			
	2	Thin Film Coating Technologies n ö Spindle province not Si.			
	3	In solving problems thin film coating Technique of the kin Know , Apply Nabil A lot of work and Learning			
	4	Thin-film coatings characterization test S and analysis Of the Learning .			
	5	Recognize the application areas of thin films and express their technological importance .			

**Course-Specific Explanations:**



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**Course Syllabus Form**

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