



Code and Name: FIZ 5310 THIN FILM TECHNOLOGY

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:
Place:

YY:

UE:

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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 the coating structure, and coating characterization. Additionally, students are expected to gain fundamental insights into thin films, understand 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	Materials Science and Definition of Thin Film Coating	YY
2	Introduction of Vapor Phase Techniques	YY
3	Chemical Vapor Deposition Processes and Classification	YY
4	Chemical Vapor Deposition Processes (CVD , CVI)	YY
5	Thin film magnification; Substone, Surfaces and Thin Film Nucleation	YY
6	Physical Vapor Deposition Methods and Classification	YY
7	Physical Vapor Deposition (Evaporation)	YY
8	VISA	YY
9	Physical Vapor Deposition (Arc, Splash)	YY
10	Coating Selection and Criteria i	YY
11	Pre-Coating Surface Preparation Processes	YY
12	Performance Tests of Coatings	YY
13	Coating Analysis and Characterization	YY
14	Industrial Application Examples	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 , To be able to apply 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

Document No	EGTM - 0001
Publication Date	13.09.2021
Revision Date	-
Revision No	0

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