



Code and Name: FİZ5180 MODELING APPROACHES IN PHYSICS

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 3 It will be done on an hourly basis.
Place: YY: - UE: -

Purpose: V processing, analysis of data, Modeling and their interpretation On top of that, to eliminate the deficiencies of the student.

Material: 1) Basmadjian, D., 2003. Mathematical Modeling of Physical Systems. Oxford University Pres, 350 p., 2) Shuman, L.J., D'Agostino, R.B., Wolfe, H., 1984. Mathematical Modeling. The Haworth Pres, Inc.

Student Responsibility ; Students are expected to attend classes to the fullest extent and complete assigned homework on time and with diligence.

Weekly Lesson Plan	Week	Topic	Method
	1	Introduction to Modeling in Physics	YY
	2	Mathematical Tools for Modeling in Physics	YY
	3	Effects of Physical Forces	YY
	4	Compartmental Modeller	YY
	5	Reactor Modeling	YY
	6	Rational Models	YY
	7	Infinitesimal Pitch Models	YY
	8	Simple Continuity Model	YY
	9	Principles of Empirical Modeling	YY
	10	Analytical Modeling	YY
	11	Finite Small Range Modeling	YY
	12	Modeling with Weight Methods	YY
	13	Introduction to Artificial Intelligence	YY
	14	Machine Learning	YY

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

Course Outcomes:	1	The student learns the basics of Modeling,
	2	Can make mathematical and logical models,
	3	Can establish its own model system,
	4	Have basic and advanced ideas on the philosophy of modeling,
	5	Defines physical systems with Artificial Intelligence

Course-Specific Explanations:

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



T.C.
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Course Syllabus Form

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