

# HISTORY OF PHYSICS

1	Course Title:	HISTORY OF PHYSICS
2	Course Code:	FZK2410
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	There is no course prerequisite
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. EMIN N. ÖZMUTLU
15	Course Lecturers:	Yrd. Doç. Dr. Sezer ERDEM
16	Contact information of the Course Coordinator:	Prof. Dr. Emin N. ÖZMUTLU E-mail: ozmutlu@uludag.edu.tr İş Tel:(0224)2941693 Adres: UÜ Fen Edebiyat Fakültesi, Fizik Bölümü, 16059 Görükle Kampüsü, Bursa
17	Website:	
18	Objective of the Course:	The aim of this course to teach the philosophical concepts of physics and the interrelations between different physical subjects throughout the historical stream of physics.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Learns the conceptual development of physics.
	2	Understands the interrelations among different physics' subjects.
	3	Learns the cronological development of physics' subjects.
	4	Can follow discussions of physics' philosophy.
	5	Understand the physical interpretation of natural phenomona.
	6	Gains the ability of scientific thinking.
	7	Gains the ability of scientific interpretation of every day events.
	8	
	9	
	10	
21	Course Content:	
	Course Content:	

Week	Theoretical	Practice
1	Introduction	Free Discussions.
2	Physics and astronomy before Galileo.	Free Discussions.
3	Sun centred planets system.	Free Discussions.
4	Galileo's physics.	Free Discussions.
5	Newton's synthesis.	Free Discussions.
6	Overall physics laws	Free Discussions.
7	Optics.	Free Discussions.
8	Electricity and magnetism.	Free Discussions.
9	Midterm exam+repeating courses	Repeating courses and midterm exam
10	Special relativity theory,General relativity theory	Free Discussions.
11	Thermodynamics.	Free Discussions.
12	Experimental physics at the end of 19. century.	Free Discussions.
13	Quantum mechanics and particle physics.	Free Discussions.
14	History of cosmology.	Free Discussions.

22	Textbooks, References and/or Other Materials:	1.E.N. Özmutlu (2012), "Unpublished Lectures Notes". 2.L. Motz, J.H. Weaver (1985), "The Story of Physics", Plenum Pres, New York.
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Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical				
Midterm Exam	1	40.00	3.00	42.00
Practicals/Labs		14	2.00	28.00
Self study and preparation	0	0.00	5.00	70.00
Homeworks		0	0.00	0.00
Projects	2	10.00	0.00	0.00
Field Studies		0	0.00	0.00
Midterm exams		1	6.00	6.00
Others		14	2.00	28.00
Final Exams		10.00	6.00	6.00
Total				
Total Work Load				180.00
Course work load/ 30 hr				6.00
ECTS Credit of the Course				6.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	5	5	0	0	5	4	0	5	5	0	0	0	0	0	0
ÖK2	3	3	2	0	0	3	2	0	3	2	0	0	0	0	0	0
ÖK3	5	5	4	0	0	5	3	0	3	4	0	0	0	0	0	0
ÖK4	5	5	5	0	0	5	3	0	3	4	0	0	0	0	0	0

ÖK5	5	5	5	0	0	5	3	0	3	4	0	0	0	0	0	0
ÖK6	5	5	5	0	0	5	3	0	3	4	0	0	0	0	0	0
ÖK7	5	5	5	0	0	5	2	0	2	2	0	0	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			