Course Information								
Course Code	**T**	**P**	**L**	**C**	**ECTS**	**Type** C/E	**Language** TR/ENG etc.	**Year/Semester**
FİZ2004	**3**	**0**	**0**	**3**	**5**	**E**	**TR**	**2/SPRING**
Course Name (Turkish**)**	**Fizik Bilimi Tarih**							
Course Name (English)	**History of Physics Science**							

Unit/Program	Physics Department/Undergraduate Program
Course Prerequisite	No
Course Objectives	The phases of science periodically, the philosophy of science at that time and By evaluating with the cultural structure, the scientific findings of the scientists of the time It involves the study of how they arrive.
Course Outline	Science in Ancient Civilizations, Medieval Europe and Science in the Islamic World, Renaissance and Modern Science, natural sciences in the 18th century, Industrial revolution and science, Natural sciences in the 19th century, 20. Philosophy of science in the twentieth century, philosophy of Quantum Physics
Textbook/ Material / Resources	1. Cemal Yildirim. (1997). History of Science. Istanbul: Remzi Bookstore 2. Sevim Tekeli, Esin Kaya, Remzi Demir, H. Gazi Tepdemir, Yavuz Unat. (1997). History of Science. Istanbul: Doruk Publications 3. A. O. Gurel (2001). History of Natural Sciences. Ankara: İmge Bookstore
Internship Status	No

Course Precedents

University Name	**Program Name**	**Course Name**	**T-P-L-C; ECTS**	**Type**
Eskisehir Osmangazi University	**Physics**	**History of Science in Physics I**	**2-0-0-2-2**	**E**
Harran University	**Physics**	**History of Science in Physics**	**3-0-0-3; 4**	**E**

The instructor who proposed the course (Title, Name and Surname)	*Signature*
Instructors who can teach the course (Title, Name and Surname)	*Signature*

Academic justification for the opening of the course? (The effect of course outcomes on program outcomes, etc.)

Brief explanation of the course (theoretical lecture, applications, laboratory, studio, off-campus activity, using software, etc.)
Face-to-face courses will be taught under the supervision of the relevant faculty member.

External Stakeholder Opinions About the Course (It is expected that the opinions to be obtained from the business world that will employ your graduates or from real or legal persons outside the University who have expertise on the subject of the course will be specified. Proof documents must be attached to this form.)	
Stakeholder Name	**Opinion** (It should be given as a summary, it should not exceed two lines.)

Weekly Course Content Distribution		
Week	**Theory**	**Application/Laboratory**
1	Introduction to Science in Ancient Civilizations	
2	Introduction to Science in Medieval Europe and the Islamic World	
3	Introduction to the Renaissance and Modern Science	
4	Natural sciences in the 18th century	
5	Euler, Lagrange, Laplace, d'Alembert, C. A. Coulomb, J. L. Lagrange, J. Watt, L. Galvani	
6	Industrial revolution and science; Natural sciences in the 19th century	
7	Philosophy of science in the 20th century	
8	Popetian philosophy, Kuhn's paradigm approach,	
9	Midterm Exam	
10	Developmental processes of classical mechanics, the theory of relativity and quantum theory	
11	Philosophy of quantum mechanics	
12	Comments on quantum mechanics	
13	Paradoxes in quantum mechanics: Schrödinger's cat	
14	Einstein Rosen Podolsky (EPR) paradoksu, Bell teoremi	
15	Final Exam	
16		

Assessment			
Evaluation Criteria	**Activity**	**Custom**	**Contribution to Success Grade (%)**
	Midterm Exams	1	40
	Quizzes		
	Assignments		
	Projects		
	Term Paper		
	Laboratory		
	Other		
	Final Exam	1	60
		Sum:	100
Remarks			

Content Design and Subject Weight (%)	Mathematics and Basic Sciences	90
	Engineering Sciences	
	Social Sciences	
	Health Sciences	
	Educational Sciences	
	Culture and Art Sciences	10
	Design Information	

Workload (ECTS) Calculation			
Events	**Number**	**Duration (Hours)**	**Total workload (Hours)**
Fieldwork			
Midterm Exam Application	1	2	2
Self-Study (including pre-class and exam preparation)	14	2	28
Make-up Exam	1	2	2
Experiment and Observation			
Class Participation (Theory)	14	3	42
Homework			
Final Exam Practice	1	2	2
Laboratory			
Article Review			
Writing an Article			
Reading			
Case Study			
Performance			
Problem Solution			
Project Preparation			
Project Submission			
Quiz			
Report Preparation			
Submitting Reports			
Role/Drama Work			
Seminar			
Oral Exam			
Team/Group Work	12	3	36
Argument	14	1	14
Application/Practice			
Other			
TOTAL WORKLOAD:			**126**
ECTS CREDİTS OF THE COURSE: *(The number obtained as a result of Total Workload/25 is calculated by rounding to the whole number.)*			**5**

	Program Outcomes (PO) / **Learning Outcomes (LO)** *(Course Outcomes)*	1	2	3	4	5	6	7	8	9	10	11
1	Philosophical approach to the historical development of physics and natural sciences	**3**	**3**	**3**	**1**	**1**	**1**	**3**	**3**	**3**	**5**	**3**
2	To get to know scientists better by considering the conditions of the period they live in,	**3**	**3**	**3**	**1**	**1**	**1**	**3**	**3**	**3**	**5**	**3**
3	Loving science and being motivated to work scientifically	**3**	**3**	**3**	**1**	**1**	**1**	**3**	**3**	**3**	**5**	**3**

Organizer: Prof. Dr. Ömer KAYGılı
Preparation Date: 20.05.2024