

Course Information								
Course Code	T	P	L	C	ECTS	Type C/E	Language TR/ENG etc.	Year/Semester
FİZ3017	3	0	0	3	5	E	TR	3/FALL
Course Name (Turkish)	Fizikte Temel Kavramlar							
Course Name (English)	Basic Concept in Physics							

Unit/Program	Physics Department/Undergraduate Program
Course Prerequisite	No
Course Objectives	To teach the basic concepts in physics by considering them in the relationship of cause and effect, to comprehend the relationship between physics and mathematics and philosophy.
Course Outline	Space and Time as Two Basic Concepts of Physics, Cause-Effect Principle, Measurement-Observation-Experiment trio, Positive The Principle of Simplicity as the Basis of Sciences and Physics, Physics-Mathematics, Physics-Philosophy relationship
Textbook/ Material / Resources	1. Serway Physics Book 2. Basic Physics Dating Publishing
Internship Status	No

Course Precedents				
University Name	Program Name	Course Name	T-P-L-C; AKTS	Type
Pamukkale University	Chemistry	Basic Concepts in Physics	2-0-0-3; 5	C
Gazi University	Physics	Basic Concepts in Physics	2-0-0-2; 3	C
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	The Position of Nature in All Natural Sciences and Physics	
2	Space and Time as Two Fundamental Concepts of Physics	
3	The Principle of Cause and Effect as the Other Important Basis of Physics	
4	The Trio of Measurement-Observation-Measurement-Experiment as the Most Basic Process of Physics	
5	As the main feature of the method of physics; Explaining the Changes in Nature with the Unchanging	
6	Conservation and Variance as Other Fundamental Concepts in Physics	
7	Positive Sciences and the Principle of Simplicity as the Basis of Physics	
8	Positive Sciences and the Principle of Simplicity as the Basis of Physics	
9	Midterm Exam	
10	The Relationship Between Physics and Mathematics	
11	The Relationship Between Physics and Mathematics	
12	The Relationship Between Physics and Philosophy	
13	The Change of Basic Concepts in Physics in the Last Century	
14	The Change of Basic Concepts in Physics in the Last Century	
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	100
	Engineering Sciences	
	Social Sciences	
	Health Sciences	
	Educational Sciences	
	Culture and Art Sciences	
	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 CREDITS 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)										
		1	2	3	4	5	6	7	8	9	10	11
Learning Outcomes (LO) (Course Outcomes)												
1	To be able to understand the basic concepts of physics and to relate to other branches of science	5	5	5	4	3	3	4	5	5	3	3
2	Development of the ability to observe, measure and make experimental interpretations in physics	5	5	5	4	3	3	4	5	5	3	3
3	To be able to establish and interpret the relationship between past physics concepts and current concepts	5	5	5	4	3	3	4	5	5	3	3

Organizer: Assoc. Prof. Dr. Serpil YALÇIN KUZU

Preparation Date: 20.05.2024