AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Physics I								
Course Code	FBÖ151		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	The aim of this course is; to provide the students understand the basic concepts and principles of physics and its mechanical subdivision and to transform the basic principles and concepts of physics into a practical aspect with a wide perspective with applications in the real world								
Course Content	Meaning, areas, importance, historical development of physics; SI unit system, dimension analysis, vectors; meaning and variables of movement; examples of motion in one and two dimensional space; relative speed; Newton's laws and practices; universal gravitation; frictional force; work, power, mechanical energy types; simple machines; energy in protected and non-conservative force systems; push, linear momentum, center of mass, interaction in one and two dimensional space; equilibrium in solid bodies; kinematics and dynamics of rotation and rolling motion, energy and angular momentum; pressure; Lifting force; simple harmonic motion, damped and forced oscillations, resonance and open and closed end experiments for these subjects.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Discussion, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Fen ve Mühendislik için Fizik 1, Serway & Beichner, Palme Yayıncılık
2	Üniversite Fiziği 1 & 2, Young & Freedman, Pearson Education Yayıncılık
3	Fen ve Mühendislik için Fizik 1, Serway & Beichner, Palme Yayıncılık
4	Üniversite Fiziği 1 & 2, Young & Freedman, Pearson Education Yayıncılık

Week	Weekly Detailed Course Contents	
1	Theoretical	Physics and Measurement
2	Practice	One Dimensional Motion
3	Practice	Vectors
4	Theoretical	Two-Dimensional Motion
5	Practice	Newton's Laws of Motion
6	Theoretical	Uniform Circular Motion
7	Theoretical	Work and Kinetic Energy
8	Intermediate Exam	Midterm
9	Theoretical	Potential Energy and Conservation of Energy
10	Theoretical	Linear Momentum and Collisions
11	Theoretical	Rotation of a Rigid Object about a Fixed Axis
12	Theoretical	Angular Momentum
13	Theoretical	Static Equilibrium and Elasticity
14	Theoretical	Waves and Vibrations
15	Theoretical	Universal Gravitation Law
16	Final Exam	Final

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Midterm Examination	1	8	1	9

Final Examination	1	9	1	10
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	It makes definition of physics and expresses the its importance among other science branches by specifying its historical development and its effects on our lives, makes necessary transformations about the SI unit system.
2	Explain the concepts of motion and make interpretations, problem solving and application in line with these concepts.
3	3 Expresses Newton's laws of motion and can interpret, problem solve and practice in the light of these laws.
4	Learners are able to explain work and energy concepts and interpret,apply them and solve problems in the context of energy transformations and conservation.
5	Learners are able to explain the concepts of impulse, linear momentum, rotation and angular momentum and able to interpret, apply these concepts, solve problems in the direction of these concepts.
6	The students explain the concepts of pressure and lift force and can interpret, apply and solve problems in accordance with these concepts.
7	Students explain the concepts of periodic motion and can interpret, apply and solve problems in accordance with these concepts.

Programme Outcomes *(Science Teacher Education)*	
1	To be able to gain subject knowledge of profession in theory and practice in the learning process.
2	To be able to gain the competence of using the appropriate approach, strategy, method and technique for the instructional plans to be prepared in the learning process.
3	To be able to gain the skills of the teaching profession in the learning process.
4	To be able to implement teaching profession knowledge, skills, attitudes and habits related to the subject-matter in a real teaching and learning environment in the learning process.
5	To be able to comprehend contemporary approaches of education and the philosophy they are based on.
6	To be able to gain the basic skills such as comprehending, expressing, commenting, evaluating, being aware and enterprising, communicating, acknowledging the individual related to the subject-matter.
7	To be able to become individuals faithful to the Principles and Revolutions of Ataturk, be modern democratic, secular, protecting and deveoping one's country, being alive to the nation, respecting human rights, preserving the nature, not being discriminatory, giving importance to the traditions and customs, protecting the values
8	To be able to improve oneself in terms of sport, art and culture.
9	To be able to become individuals believing in lifelong learning.
10	To be able to gain the vision of being individuals who keep up with developments in social, economic, technological and scientific areas, who investigate the main reasons of World problems and try to contribute to the solutions of these problems.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5	L6	L7
P1	5	5	5	5	5	5	5
P2	4	4	4	4	5	5	4
P3	5	4	5	5	5	5	5
P4	4	4	4	4	5	5	4
P5	5	4	5	5	5	5	5
P6	4	5	4	4	5	4	5
P7	5	4	5	5	5	5	5
P8	4	4	4	4		4	5
P9	4	5	5	4		5	5
P10	4	4	4		4	4	5