



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Introduction to Basic Physics							
Course Code		FİZ173		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Objective of this course is to introduce laws of motion and to apply them to various situations, and to establish a relationship between the force, work and energy while emphasizing universality of these concepts.							
Course Content		Vectors, Describing motion, Laws of motion and its applications, Work and energy, Conservation of Energy and Momentum, Rotational, Vibrational Motion and Waves. Laws of motions and fluid mechanics and thermodynamics.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Problem Solving					
Name of Lecturer(s)		Ins. Muhittin TURAN, Lec. Mesut EKMEKÇİ							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	60
Assignment	1	10

Recommended or Required Reading

1	Üniversite Fiziği Cilt I , H.D.Young, R.A.Freedman
2	Fen ve Mühendisler için Fizik 1 (Mekanik) , R.A. Serway, R.J. Beichner
3	Fiziğin Temelleri , David Halliday, Robert Resnick, and Pearl Walker

Week	Weekly Detailed Course Contents	
1	Theoretical	Physical quantities, vectors and scalars
2	Theoretical	Motion in one dimension
3	Theoretical	Vectors and Motion in two dimension
4	Theoretical	Laws of motion and dynamics
5	Theoretical	Circular motion and other applications of Newton's Laws
6	Theoretical	Work, kinetic and potential energy
7	Theoretical	Linear momentum and collisions
8	Theoretical	Subject reputation (Midterm Exam)
9	Theoretical	Rotation of rigid bodies, Rolling motion and angular momentum
10	Theoretical	Rotation of rigid bodies, Rolling motion and angular momentum
11	Theoretical	Elasticity and vibration motion
12	Theoretical	Waves and basic properties
13	Theoretical	Introduction to fluid physics
14	Theoretical	Kinetic theory and heat and temperature, Thermodynamics Principles and basic examples

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	1	4	4	8
Midterm Examination	1	25	2	27
Final Examination	1	35	2	37
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Students show that the concepts in physics are related to experiments and that the laws of the universe can be understood with simple concepts such as force, work and energy.
2	Students describe the movements in one and two dimensions with the concept of vector and show the differences and relationships between different movements.
3	Students explain the interactions between moving particles with the concept of momentum and list the reasons for conservation of momentum.
4	Students apply the Newton's equations to fluids.
5	Students associate the heat and temperature with energy and movement.

Programme Outcomes (Textile Technology)

1	1. To have basic theoretical and practical knowledge related to the field of textile technology, weaving, finishing process and pattern design. Be able to recognize problems, develop solutions for the problems, designing and having the ability to use theoretical knowledge in practical applications.
2	2. Be able to identify problems, develop solutions to the problems, be able to devise, to have the ability to use theoretical knowledge in practical applications by using acquired the basic knowledge and skills in the field. – Be able to choose technical equipments which are needed for applications in the field and use effectively. - Awareness of the need for life-long learning to follow developments in the textile technology, learning independently and to gain awareness of continuous self-renewal. - Be able to examine the application of production processes in the textile industry. – Be respectful to their own history and to be conscious about the subjects of social responsibility, universal and social and professional ethics.
3	3. To have basic theoretical and practical knowledge related to the field of textile technology, weaving, finishing process and pattern design. To be conscious about the subjects of job security, the information of environmental protection, quality awareness and being conscious of participating in team work.
4	4. Be able to identify problems, develop solutions to the problems, be able to devise, to have the ability to use theoretical knowledge in practical applications by using acquired the basic knowledge and skills in the field. - To be conscious about the subjects of job security, the information of environmental protection, quality awareness and being conscious of participating in team work.
5	5. Be able to examine the application of production processes in the textile industry. Be able to identify problems, to develop solutions to the problems, be able to devise, to have the ability to use theoretical knowledge in practical applications by using acquired the basic knowledge and skills in the field. Be respectful their own history and be conscious about the subjects of social responsibility, universal and social and professional ethics.
6	6. Be able to examine the application of production processes in the textile industry. To be aware solutions and applications of the effects of global and societal context in technician-level; being aware of entrepreneurship and innovation, and to have knowledge of the issues of the age.
7	7. To gain the knowledge and awareness of Atatürk's principles & reforms and using Turkish Language effectively.
8	8. To gain the knowledge about his/her society and to gain a different point of view about the world

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

	L1	L2	L3	L4	L5
P2	2	2	2	2	2
P3	2	2	2	2	2

