



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	103 (<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							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	70
Quiz	2	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	Intermediate Exam	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
15	Theoretical	Thermodynamics Principles and basic examples

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	4	70
Quiz	2	2	0.5	5
Midterm Examination	1	10	2	12
Final Examination	1	14	2	16
Total Workload (Hours)				103
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	
2	
3	
4	
5	

Programme Outcomes (Automotive Technology)

1	Using the basic knowledge and skills acquired in his/her field of study, to have the ability to evaluate and interpret the data, to define and analyze the problems, to make solution suggestions based on evidence and proofs.
2	To choose and use efficiently contemporary techniques and means as well as information technologies required for the applications related to the field of study.
3	The ability to apply the processes related to industrial and service sector by examining.
4	To gain the ability to produce solutions to unforeseen situations, take responsibility in teams and to have the skill to conduct individual works.
5	To achieve an awareness of the necessity of lifelong learning and consistently self-improving besides of following the developments in science and technology.
6	To become skillful at using computer hardware and software in a baseline level required by the field of study.
7	To be aware of Business Law, Job Security, environmental protection and quality concepts.
8	To have a command of communication skills and foreign language in order to communicate efficiently and follow the latest developments in his/her field of study.
9	Acquiring enough conceptual and applied knowledge in Mathematics, Science and Basic Engineering issues related to his/her field.
10	To plan the processes in automotive technology field to meet the expectations of the sector.
11	To become skillful at making designs by means of technical and computer-aided drawings and simulation programs, and by using various software programs to be able to choose systems and components required in by the field apart from making the basic sizing computations and drawing the architectural and static projects and details.
12	Ability to use the methods and techniques of career planning and discussing the effects of character traits on career preferences.
13	To provide them with knowledge about substance use and addiction problem and prevention methods.

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

	L1	L2	L3	L4	L5
P1	3				
P2		2			
P3			3		
P4				4	
P5					4

