



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		English For Physics							
Course Code		FİZ234		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	6	Workload	150 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The purpose of this lecture is to that students should be able to understand physics sentence, in English and speak the English language.							
Course Content		Glossary for physics terms, MIT physics, translation techniques							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)		Assoc. Prof. Yelda KADIOĞLU							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	70
Quiz	6	10
Assignment	6	10

### Recommended or Required Reading

1	Üniversite Fiziği Cilt I Yazarları: H.D.Young, R.A.Freedman
2	Fizik 1 (Mekanik) Yazarları: R.A. Serway, R.J. Beichner
3	Fiziğin Temelleri Yazarları: David Halliday, Robert Resnick, and Jearl Walker
4	Ohanian Physics Yazarı: Hans C. Ohanian
5	Lectures on Physics Yazarı: R. Feynmann

Week	Weekly Detailed Course Contents	
1	Theoretical	Glossary for Physics terms I (Mechanics)
2	Theoretical	Glossary for Physics terms II (Electromagnetism)
3	Theoretical	Glossary for Physics terms III (Quantum and Statistical Mechanics)
4	Theoretical	Read a Physics Sentence I
5	Theoretical	Read a Physics Sentence II
6	Theoretical	Read a Physics Sentence III
7	Theoretical	Listen to MIT Physics I
8	Intermediate Exam	Midterm
9	Theoretical	Listen to the lecture about Physics I at MIT
10	Theoretical	Listen to the lecture about Physics I at MIT
11	Theoretical	Listen to the lecture about Quantum mechanics at MIT
12	Theoretical	Translation Techniques
13	Theoretical	Translate Physics sentence from English to Turkish (Mechanics)
14	Theoretical	Translate Physics sentence from English to Turkish (Electromagnetism)
15	Theoretical	Translate Physics sentence from English to Turkish (Quantum mechanics)

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	3	3	90
Assignment	6	5	1	36
Quiz	6	1	0.5	9
Midterm Examination	1	5	1	6



Final Examination	1	7	2	9
Total Workload (Hours)				150
[Total Workload (Hours) / 25*] = ECTS				6
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	It should be known that meaning of the concepts of fundamental physics
2	It should be understood that the basic physics books.
3	It should be understood that seminar and lecture
4	Be able to translate from Turkish to English language
5	Be able to translate from English to Turkish language

### Programme Outcomes (Physics)

1	To understand the importance of physics by understanding the general concepts of physics, matter and energy
2	To be able to define the movements of matter and to distinguish the characteristics of movements under different force (potential)
3	Be able to say the meaning of Lagrange and Hamiltonian formulations of the movement and apply them to simple problems,
4	To be able to express the fundamental concepts such as time, space, force, momentum and energy in the movements of matter close to the speed of light and be able to solve and interpret the simple problems related to
5	To be able to establish the relationship between electric and magnetic forces and to be able to illustrate their applications to technology and solve problems related to the movement of particles in electric and magnetic fields
6	Be able to say the basic laws of electromagnetics and apply them to problems, illustrate their applications to simple technology
7	To be able to tell the reasons of the differences between the classical cases and the quantum scale and explain the reasons
8	Explain the concepts of discontinuity, uncertainty, matter-antimatter, indecisiveness of quantum physics with examples and explain simple problems related to the subject.
9	To be able to solve the problems of micro-particles under different simple potentials and be able to say their meanings
10	To be able to establish the relationship between the movements and properties of multi-particle systems and the laws of probability and solve simple problems
11	To be able to illustrate the laws, meanings and applications of thermodynamics and use them
12	Be able to use their knowledge about quantum physics and mechanics in explaining some properties of atoms and nuclei
13	To be able to show the meanings of some theoretical concepts by experimenting, and develop a strong relationship between thought and the real world, develop analytical thinking
14	To be able to apply the meanings of the basic laws of physics, their comprehension of universality and the relations between them and the unity of the laws of nature.
15	Use computer to solve physics problems
16	To be able to understand the problems by using their analytical knowledge skills and to propose solutions by dealing with the laws of physics
17	Be able to use the knowledge of physics to understand new technologies
18	To be able to tell the relations between symmetry and conservation laws in laws of physics

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

	L1	L2	L3	L4
P1	4			
P2			4	4
P4			4	
P14		4		
P17	4	3		

