



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Physics II							
Course Code		FİZ162		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	5	Workload	124 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		To teach the fundamental topics of electricity and magnetism							
Course Content		Electrical charge and matter, Coulomb's Law and Gauss' Law, Electric field, Electrical Potential, Capacitance and dielectrics, electric current and resistance, DC circuits, electromotive force and circuits, Magnetic field, sources of magnetic field, Ampere's Law, Faraday's Law Induction, AC circuits							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Problem Solving					
Name of Lecturer(s)		Assoc. Prof. Melis GÖKÇE, Lec. Onur GENÇ, Prof. Aytaç Gürhan GÖKÇE							

Prerequisites & Co-requisites

Prerequisite	FİZ161
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Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	70
Quiz	4	10

Recommended or Required Reading

1	Fen ve Mühendislik için Fizik II", Palme Yayıncılık, Ankara. Çeviri Editörü: Prof. Dr. Kemal Çolakoğlu; Editörler: R.A. Serway, R.C. Beichner, J.W. Jevett.
2	Üniversite Fiziği, Cilt 2, Çeviri Editörü: Hilmi Ünlü; Editörler: H. D. Young, R. A. Freedman

Week	Weekly Detailed Course Contents	
1	Theoretical	Electric charge and matter
2	Theoretical	Coulomb's Law and Gauss's law
3	Theoretical	Electric field and Gauss's law
4	Theoretical	Electrical Potential
5	Theoretical	Electrical Potential
6	Intermediate Exam	Midterm
7	Theoretical	Capacitance and dielectrics
8	Theoretical	Electrical current and resistance
9	Theoretical	Direct current circuits
10	Theoretical	Electromotive force and circuits
11	Theoretical	Magnetic fields
12	Theoretical	Magnetic field sources
13	Theoretical	Ampere's law, Faraday's law
14	Theoretical	Induction
15	Theoretical	Alternative Current circuits
16	Final Exam	FINAL EXAM

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	3	3	90
Quiz	4	1	0.5	6
Midterm Examination	1	10	2	12



Final Examination	1	14	2	16
Total Workload (Hours)				124
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To learn the fundamentals of charge and matter
2	To learn the fundamentals of the electric field
3	To learn the fundamentals of Capacitors
4	To learn the fundamentals of magnetic field
5	To learn the fundamentals of inductance
6	To learn the fundamentals of the electromagnetic waves

