

Course title	Code	semester	T+U	credit	ECTS
Physics 2		2	4 +2	4	6
Prerequisite Courses	None				
Language of the Course	English				
Course Level	Undergraduate				
Type of Course	Compulsory				
Course Coordinator					
Instructors					
Course Assistants					
The aim of lesson	The aim of this course; In the first year, to inform students about the basic concepts of physics and to introduce its importance in engineering, the use of physics in our daily life, the ability to interpret physics experiments and their benefits.				
Course Content	Hydrostatics, Temperature and Expansion, Work and Heat, Coulomb's Law, Electric Charges, Conductors and Insulators, Electric Field, Lines of Force, Potential, Potential Difference, Current and Resistance, Electric Circuit, Ohm's Law, Current, Potential Difference and Resistance Measures, Wheatstone Bridge, Joule's law, RC and RL circuits, Oscilloscope and signal generator, Electric field lines, Charging and discharging of a capacitor				
Course Learning Outcomes	At the end of this course, the student; 1) Analyzes electrically charged and neutral objects. 2) Analyzes electric fields and forces created by charged systems. 3) Understands capacitors and knows their usage areas in technology. 4) Understands and analyzes electrical current and conductivity. 5) Apply electromagnetic induction, Faraday and Lenz rules to electrical circuits. 6) Separates alternating and direct current systems.				
Weeks	Topics				
one	Substances, Pressure Variation in a Fluid, Pascal's Principle and a water press. Basic metrics				
2	Archimedes principle, solution of problems related to the subject. Oscilloscope and signal generator experiment.				
3	Temperature and Expansion, Thermometers, Celsius, Fahrenheit, Kelvin Scales, Data Analysis				
4	Expansion, solution of related problems, RL and RC circuits experiment				
5	Work and Heat				
6	Work and Heat related applications and solution of problems, Krichoff's law and Wheatstone bridge experiment				
7	Work and Heat, Work Done in Volume Change, Mechanical Equivalent of Heat, Heat Capacity and Specific Heat. Phase Change, Heat Conduction and Paths, Data Analysis				
8	Coulomb's Law, Atomic Structure, Electric Charges, Conductors and Insulators, Amount and Units of Charge, Transformer experiment				
9	Electric Field, Calculation of Electric Field Intensity, Electric Field Lines, Charges in a Conductor, Electric Field of a Charged Conductive Sphere.				
10	Electric field lines experiment				
11th	Solving problems related to the subject. Data Analysis				
12	Potential, Potential Difference, Solution of Subject Related Problems				
13	Current and Resistance, Ohm's Law, Current, Potential Difference and Resistance Measurements, Joule experiment. Solution of Problems Related to the Subject.				
14	Ohm's law experiment				
15	An overview				
General Competencies					
In assessments, it is an important criterion for students to understand the main topics of this course and to use them in engineering field applications.					

resources
Richards Sears, Wehr Zemansky, Modern University Physics, CI, Caglayan Bookstore, Istanbul, 2004. Douglas C. Giancoli, Physics for Scientists & Engineers, Akademi Publishing, Ankara, 2009.
Evaluation System
The dates, days and hours of the Midterm Exam, Quiz, Final Exam and Evaluations will be announced later, according to the decision of the Faculty Administrative Board.

WITH PROGRAM LEARNING OUTCOMES COURSE LEARNING OUTCOMES RELATIONSHIP TABLE											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	4				4						
LO2	4				4						
LO3	4										
LO4	4	4									
LO5	4	4									
LO6	3										
LO: Learning Outcomes OP: Program Outcomes											
Contribution level	1 Very Low			2 Low			3 Medium		4 High		5 Very High

Relation of Program Outcomes and Related Course

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Physics 2	4	one			one						