

School of Engineering and Natural Sciences / Industrial Engineering (English)

2023 - 2024 Academic Year

PHYSICS II LAB

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
PHYSICS II LAB	IND1210753	Spring Semester	0+2	1	2
Prerequisites Courses	MATEMATİK I				
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assoc.Prof. Muhammed Fatih TOY				
Name of Lecturer(s)	Lect. Sultan YILDIZ, Res.Assist. Recep Akif TAŞÇI				
Assistant(s)	Teaching Asistants				
Aim	To support and deepen theoretical knowledge with experiments of electricity and magnetism				
Course Content	This course contains; Electrostatics, Ohm's Law and Kirchhoff's Law, RC Circuits, Lorentz Force, Transformers and Rectifiers, RLC Circuits.				
Course Learning Outcomes		Teaching Methods		Assessment Methods	
Can correctly use measuring equipment		17		E	
Can setup and operate basic electric circuits		17		E	
Can experimentally test basic laws of electricity and magnetism		17		E	
Compares experiment results with theory and offers interpretation		17		E	
Discusses experiment results		17		E	
Teaching Methods	17: Experimental Technique				
Assessment Methods	E: Homework				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Electrostatics	Reading the experiment manual- experiment 1			
2	Ohm's Law and Kirchhoff's Law	Reading the experiment manual- experiment 2			
3	RC Circuits	Reading the experiment manual- experiment 3			
4	Lorentz Force	Reading the experiment manual- experiment 4			
5	Transformers and Rectifiers	Reading the experiment manual- experiment 5			
6	RLC Circuits	Reading the experiment manual- experiment 6			
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources
Istanbul Medipol University - General Physics 2 - Experiment Manual