PHYSICS II

1	Course Title:	PHYSICS II	
2	Course Code:	FEN1002	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç. Dr. REMZIYE ERGÜL	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	ergulr@uludag.edu.tr, 2242942293	
17	Website:		
18	Objective of the Course:	To provide basic conceptual understanding about electricity and magnetism, to apply the principles of physics to different situations and to develop necessary problem solving skills.	
19	Contribution of the Course to Professional Development:	Creates and develops the knowledge base of the prospective teacher. Comprehends the concepts related to the field and the relations between concepts based on the competencies gained in secondary education. Have defines and analyzes problems related to his field, and develops solutions based on evidence and research.	
20	Learning Outcomes:		
		1	Interprets the basic concepts, laws and principles of electricity.
		2	Interprets the basic concepts, laws and principles of magnetism.
		3	Suggests solutions to problems by using the necessary calculation methods related to electricity.
		4	Suggests solutions to problems by using the necessary calculation methods related to magnetism.
		5	Evaluates the reflections of the subjects related to electricity and magnetism on technology and daily life.
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21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	Electric charge and protection, electrification, insulators and conductors,	Making classroom practices and examples
2	Coulomb's law, electric field	Making classroom practices and examples
3	Electric flux, Gauss's law and applications	Making classroom practices and examples
4	Electric potential energy, electric potential	Making classroom practices and examples
5	capacitor, capacitance and dielectrics, bonding in energy and energy.	Making classroom practices and examples
6	Direct current, resistance and Ohm's Law, connecting resistors, self-resistance	Making classroom practices and examples
7	Direct current circuits. Kirchhoff's Laws, solution of circuit problems.	Making classroom practices and examples
8	Direct current circuits. Kirchhoff's Laws, solution of circuit problems.	Making classroom practices and examples
9	Magnetism, magnetic field, magnetic force	Making classroom practices and examples
10	Electromagnetic induction, Faraday's law,	Making classroom practices and examples
11	Matter and magnetism, magnetic properties of matter	Making classroom practices and examples
12	AC generators, electric motors, transformers.	Making classroom practices and examples
13	Heat and temperature, thermal properties of matter (core heat, thermal conductivity, thermal expansion)	Making classroom practices and examples
14	Thermodynamic laws, reversible and irreversible events, efficiency and entropy	Making classroom practices and examples

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	0	0.00	0.00
Homeworks	5	2.00	10.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	10.00	10.00
Others	0	0.00	0.00
Final Exams	1	15.00	15.00
Total Work Load			101.00
Total work load / 30 hr			3.03
ECTS Credit of the Course			3.00

22	**TEAM LEARNING ACTIVITIES** **NUMBER** **WEIGHT**
Assesment	Bueche, J.,F., Jerde, A.D. Fizik ilkeleri, cilt I, Palme yayıncılık
Quiz	0 0.00
Midterm exams	1 60.00
Final Exam	1 40.00
Contribution of Term (Year) Learning Activities to Success Grade	40.00
Contribution of Final Exam to Success Grade	60.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	Midterm exam with multiple choice or open-ended questions,

24	**ECTS / WORK LOAD TABLE**

25	**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	1	1	5	5	1	1	1	5	4	1	1	1	1	1	1
ÖK2	5	1	1	5	5	1	1	1	5	4	1	1	1	1	1	1

ÖK3	5	1	1	5	5	1	1	1	5	4	1	1	1	1	1	1
ÖK4	5	1	1	5	5	1	1	1	5	4	1	1	1	1	1	1
ÖK5	5	1	1	5	5	1	1	1	5	4	1	1	1	1	1	1

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**