BASIC PHYSICS II

1	Course Title:	BASIC PHYSICS II	
2	Course Code:	FZK1072	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	2	
11	Prerequisites:	There is no course prerequisite	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç. Dr. Hüseyin Ovalıoğlu	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	Doç. Dr. Hüseyin OVALIOĞLU E-mail: ovali@uludag.edu.tr İş Tel: 0 224 29 41 691 Adres: Bursa Uludağ Üniversitesi Fen Edebiyat Fakültesi Fizik Bölümü, 16059 Görükle Kampüsü BURSA	
17	Website:		
18	Objective of the Course:	The aim of this course is to teach concepts related to electricity and magnetism , to explain electricity laws and relation of between the physical concepts. To teach how is applied the physic laws to solve the problems.	
19	Contribution of the Course to Professional Development:	The aim of this course is to teach concepts related to electricity and magnetism , to explain electricity laws and relation of between the physical concepts. To teach how is applied the physic laws to solve the problems.	
20	Learning Outcomes:		
		1	The student can solve engineering problems by using the basic concepts of electricity and magnetism.
		2	The student can produce the solution to complex problems.
		3	The student can follow the scientific developments.
		4	The student can reinforce own information by doing the experiments in laboratory
		5	The student can be analyzed the results.and can be interpret.
		6	The student know the working principle of the basic circuit elements
		7	
		8	
		9	
		10	
21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	Electric Charges, Insulators and Conductors, Coulomb's law	Working conditions in the laboratory, the creation of groups, and general information about laboratory
2	Electric Field, Electric Field of Continuous Charge Distribution, Electric Field Lines	Drawing graph and determine the ways to be followed conclusions based on the received results
3	Gauss Law and Applications	Coulombs law
4	Electric Potential and Energy	Determination of the electric field plate capacitor
5	Capacitance and Dielectrics	Joule law
6	Current and Resistance	Alternative flow frequency
7	Direct Current Circuits	Wheatstone bridge
8	Midterm exam + repeating courses	Midterm exam + repeating courses
9	Magnetic Fields	The calculation of inductance L
10	Sources of the Magnetic Field	Biot Savart law
11	Faraday's Law	Measurement of the magnetic forces acting on the wire current
12	Alternative Current Circuits	Determination of the dielectric coefficients of different substances
13	Alternative Current Circuits	Control of the test reports
14	Maxwell Equations	Control of the test reports

22	Textbooks, References and/or Other Materials:	1. Raymond A. Serway, John W., (1995). “Physics for Scientists and Engineers”cilt 2, Palme Yayıncılık

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	3.00	42.00
Homeworks	14	5.00	70.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			186.00
Total work load/ 30 hr			6.20
ECTS Credit of the Course			6.00

23	Assesment	
	TERM LEARNING ACTIVITIES	**NUMBER** **WEIGHT**
	Midterm Exam	1 40.00
	Midterm exam project	0 0.00
	Final	1 60.00
	Total	100.00
	Success Grade	
	Measurement and Evaluation Techniques Used in the Course	One midterm and one final exam will be held to understand how much the information about this course has been learned.

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	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ÖK3	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
ÖK5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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