

GENERAL PHYSICS II

1	Course Title:	GENERAL PHYSICS II	
2	Course Code:	FZK1074	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	4.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. MUHITDIN AHMETOĞLU	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	afrailov@uludag.edu.tr, 0 224 294 16 99, UÜ Fen Edebiyat Fakültesi, Fizik Bölümü 16059 Görükle Kampüsü Bursa	
17	Website:		
18	Objective of the Course:	To teach the student the basic concepts and laws of electric and magnetic fields, to explain the relationship between concepts. To explain how to apply the laws of physics to problem solving.	
19	Contribution of the Course to Professional Development:	The student gains the ability to deepen the knowledge of electricity and magnetism and to examine the effects on systems by following the latest developments in the field.	
20	Learning Outcomes:		
		1	The student learn basic electric and magnetic field concepts and use them in their own field.
		2	The student can produce the solution to complex problems.
		3	The student can follow and interpret the developments in the scientific field.
		4	The student can be analyzed the results and can be interpret.
		5	The student know the working principle of the basic circuit elements.
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Electric Charges, Insulators and Conductors, Coulomb's law		

2	Electric Fields	
3	Gauss's Law	
4	Electric Potential and Energy	
5	Capacitance and Dielectrics	
6	Current and Resistance	
7	Direct Current Circuits	
8	Magnetic Fields	
9	Sources of Magnetic Field	
10	Faraday's Law	
11	Inductance	
12	Alternating Current Circuits	
13	Problems	
14	General review	

22	Textbooks, References and/or Other Materials:	1. O. Svelto, Principles of Lasers, (4 ed: Plenum Pres,2007) 2. B.E.A.Saleh and M.C.Teach, Fundamentals of Photonics (2 ed John Wiley & Sons Inc, 2007) 3. A.E.Siegman, Lasers (Univ Science Boks, 1986) 4. E.Hecht, Optics, 4 ed. (Addison Wesley Longman, Inc, 2001) 5. R.W.Boyd, Nonlinear Optics (3 ed Academic Pres, 2008)
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	4.00	56.00
Midterm Exam	1	40.00	
Practicals/Labs	0	0.00	0.00
Self study and preparation	14	5.00	70.00
Home work-project	0	0.00	
Homeworks	6	2.00	12.00
Projects	0	0.00	0.00
Total	2	100.00	
Field Studies	0	0.00	0.00
Midterm Exams	1	0.00	0.00
Others	6	2.00	12.00
Final Exams	1	2.00	2.00
Total	100.00		
Total Work Load			152.00
Total work load/ 30 hr			5.07
ECTS Credit of the Course			5.00

24	ECTS / WORK LOAD TABLE
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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	0	0	0	3	3	3	0	4	0	0	0	0	0	0	0	0
ÖK2	0	0	0	3	3	3	0	4	0	0	0	0	0	0	0	0
ÖK3	0	0	0	3	3	3	0	4	0	0	0	0	0	0	0	0
ÖK4	0	0	0	3	3	3	0	4	0	0	0	0	0	0	0	0

ÖK5	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							