Fizik Bölümü / PHYSICS /													
Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS							
FZK-1011	General Chemistry I	2.00	2.00	0.00	3.00	4.00							
Course Detail													
Course Language	: Turkish												
Qualification Degree	: Bachelor												
Course Type	: Compulsory												
Preconditions	: Not												
Objectives of the Course	: The aim of this course is to provide the student with the ability to understand and mechanisms and solution chemistry as well as solving chemical problems.	: The aim of this course is to provide the student with the ability to understand and interpret chemical properties, chemical reactions and mechanisms and solution chemistry as well as solving chemical problems.											
Course Contents	: This course covers basic units, ISI units, atomic theories and structure of atoms trends in periodic table, core chemistry and radioactivity, chemical bonding type	•		•	nemical reaction	ons, basic							
Recommended or Require Reading	d : 1) Temel Üniversite Kimyası, Ender ERDİK, Yüksel Sarıkaya, Gazi Kitapevi, 22. F.G., (8. Baskıdan Çeviri Uyar, T., Aksoy, S.,), Palme Yayıncılık, Ankara, 2005.	Baskı, Ankara, 201	6. 2) Genel Kir	mya, Petrucci,R.	H., Harwood,	W.S., Herring,							
Planned Learning Activitie Teaching Methods	s and : Oral presentation, discussion, question-answer												
Recommended Optional Programme Components	: None												
Course Instructors	: Prof. Dr. Ali Bilici												
Instructor's Assistants	: There is no assistant instructor.												
Presentation Of Course	: The mode of delivery of this course is face to face.												

## Course Outcomes

## Upon the completion of this course a student :

1 Will be able to understand and analyze the basic rules of General Chemistry.

2 WIII be able to solve chemical problems.

3 Will be able to compare elemental properties in the periodic table.

 $4\,\mbox{WIII}$  be able to explain the types and properties of chemical bonds.

 $5\,\mbox{WII}$  be able to describe the properties of gases, explain the basic gas laws

6 Will be able to explain the structure of the atom.

## Preconditions

Cours	e Name	Teorica	Laboratory	Credits	ECTS

## Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*Matter and energy, Basic measurement units and ISI units, significant numbers	*Matter and energy, Basic measurement units and ISI units, significant numbers			
2.Week	*Basic laws of chemistry	*Basic laws of chemistry			
3.Week	*Structure of atom	*Structure of atom			
4.Week	*Electromagnetic radiation and Atomic spectra	*Electromagnetic radiation and Atomic spectra			
5.Week	*Periodic table and properties of atoms	*Periodic table and properties of atoms			
6.Week	*Chemical compounds	*Chemical compounds			
7.Week	*Equations of chemical reactions and reaction equations	*Equations of chemical reactions and reaction equations			
8.Week	*Chemical reactions and balancing reaction equations	*Equations of chemical reactions and reaction equations			
9.Week	*Structure of atomic nucleus	*Structure of atomic nucleus			
10.Week	*Radioactive fragmentation series	*Radioactive fragmentation series			
11.Week	*Chemical Bond I, Basic Concepts	*Chemical Bond I, Basic Concepts			
12.Week	*Chemical Bond II, Bond Theories	*Chemical Bond II, Bond Theories			
13.Week	*Gases (simple gas laws)	*Gases (simple gas laws)			
14.Week	*Real gases	*Real gases			

Assesment	Methods	%

2 Final : 60.000

3 Vize: 40.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload	
Preparation for midterm	3	10.00	30.00	
Preparation for final	3	10.00	30.00	
Mid Term Exam 1	1	1.00	1.00	
Final Exam	1	1.00	1.00	
Class Hours (14 weeks)	14	4.00	56.00	
			Total: 118.00	
		Sum of Work	oad / 30 ( Hour ) : 4	
			ECTS: 4.00	

Progra	am And	Outcom	neRelatio	on																				
	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20	P.O. 21	P.O. 22	P.O. 23	P.O. 24
L.O. 1	3	4	4	3	3	2	2	1	2	3	2	1	4	1	1	0	0	0	0	0	0	0	0	0
L.O. 2	3	4	3	3	4	2	1	1	2	3	2	1	4	1	1	0	0	0	0	0	0	0	0	0
L.O. 3	4	4	3	3	5	0	1	1	2	3	2	1	4	0	2	0	0	0	0	0	0	0	0	0
L.O. 4	4	5	2	4	4	2	2	1	2	3	2	1	4	0	1	0	0	0	0	0	0	0	0	0
L.O. 5	3	5	2	4	4	2	1	1	2	3	2	1	4	0	1	0	0	0	0	0	0	0	0	0
L.O. 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4																								•

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P.O. 1	P.C	D. 2 F	P.O. :	3 P.C	<b>).</b> 4	P.O. 5	P.O.	6 F	P.O. 7	P.O. 8	P.O.	P.O.	10 F	P.O. 11	P.O. 1	12 P.O.	13 F	P.O. 1	4 P.O.	15 F	.O. 16	P.O.	17 F	P.O. 1	8 P.0	<b>)</b> . 19	P.O.	20	P.O. 2	1 P	.O. 22	P.O. 2	3 P.	O. 24	P.O. 2
3	3	3	5		5	4	4		4	1	3	3		4	3	4		4	4		0	0		0		0	0		0		0	0		0	0
4																																			Þ