Fizik Bölümü / PHYSICS / **Course Code Course Name** Teorical Laboratory Credits Practice FZK-1010 General Chemistry II 2.00 2.00 0.00 3.00 Course Detail Course Language : Turkish **Qualification Degree** : Bachelor Course Type : Compulsory Preconditions : Not **Objectives of the Course** : The main aim of the course is to provide understanding of the basic principles of chemistry and to guide students to analytical thinking. Recognizing chemistry problems in topics such as chemical equilibrium, acid-base chemistry, electrochemistry, thermochemistry, organic chemistry, analytical chemistry, and gaining the ability to solve these problems. **Course Contents** : This course content includes solids, liquids and processes, mixtures, chemical kinetics, chemical equilibrium, acids and bases, organic chemistry, biochemistry, thermodynamics, and electrochemistry,

	biochemistry, thermodynamics, and electrochemistry.
Recommended or Required Reading	: 1) Temel Üniversite Kimyası, Ender ERDİK, Yüksel Sarıkaya, Gazi Kitapevi, 22. Baskı, Ankara, 2016. 2) Genel Kimya, RAYMOND CHANG KENNETH A.GOLDSBY, (11. Baskıdan Çeviri, Recai İnam, Serpil AKsoy), Palma Yayıncılık, Ankara, 2014.
Planned Learning Activities and Teaching Methods	: Oral presentation, discussion, question-answer
Recommended Optional Programme Components	: There are no other recommended points for the 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.

ECTS

4.00

Course Outcomes

Upon the completion of this course a student : 1 Will be able to explain the chemical structures of liquids and solids. 2 will be able to determine the extent of a chemical reaction and evaluate the fundamental variables of chemical equilibrium 3 Will be able to define the basic terms of electrochemistry and explain the laws of electrolysis. 4 Will be able to explain organic compound classes and some general physical properties and important reactions. 5 Will be able to recognize groups of biochemical compounds and compare their structures and properties. 6 WII be able to describe the structure and properties of inorganic compounds 7 Will be able to explain the basic laws of thermodynamics. 8 Will be able to use the necessary theoretical knowledge to prepare solutions. 9 Will be able to explain the basic concepts of balance and solve problems

Preconditions

Course Code Course Name Teorical Practice Laboratory Credits **ECTS**

Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*Solids	*Solids			
2.Week	*Liquids and state changes	*Liquids and state changes			
3.Week	*Mixtures	*Mixtures			
4.Week	*Chemical equibilurum	*Chemical Equibilurum			
5.Week	*Chemical kinetics	*Chemical kinetics			
6.Week	*Chemical kinetics	*Chemical kinetics			
7.Week	*Inorganic Chemistry, elements and general properties	*Inorganic Chemistry, elements and general properties			
8.Week	*Biochemical compounds structure and properties	*Chemical equilibrium			
9.Week	*Biochemical compounds structure and properties	*Biochemical compounds structure and properties			
10.Week	*Organic Compounds, structure, properties and some important reactions	*Organic compounds, structure and properties, some important reactions			
11.Week	*Organic Compounds, structure, properties and some important reactions	*Organic compounds, structure and properties, some important reactions			
12.Week	*Thermodynamics	*Thermodynamics			
13.Week	*Thermodynamics	*Thermodynamics			
14.Week	*Electrochemistry	* Electrochemistry			

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
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
Final Exam Preparation	3	10.00	30.00
		Tota	: 118.00
		Sum of Workload / 30 (Hour	: 4
		ECTS	: 4.00

Program And OutcomeRelation

	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	2	1	1	2	2	4	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
L.O. 2	4	2	1	1	2	2	2	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0
L.O. 3	3	2	1	1	1	2	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0
L.O. 4	4	1	1	1	1	0	0	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0
L.O. 5	4	1	1	1	1	0	0	0	1	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0
L.O. 6	4	1	1	1	1	0	0	0	2	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0
L.O. 7	4	1	1	1	1	0	0	0	2	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0
L.O. 8	4	1	1	1	1	0	0	0	3	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0
L.O. 9	4	1	1	1	1	0	0	0	2	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0
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Ders/Program Çıktıları İlişkisi

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 P.O. 24 P.O. 2

1	3	2	4	3	4	2	2	3	3	3	3	3	5	3	0	0	0	0	0	0	0	0	0	0
4	1 3 2 4 3 4 2 2 3 3 3 3 3 5																						►	