GENERAL CHEMISTRY II

1	Course Title:	GENERAL CHEMISTRY II
2	Course Code:	KIM1032
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):	2.00
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. RAHMIYE AYDIN
15	Course Lecturers:	Yok
16	Contact information of the Course Coordinator:	rahmiye@uludag.edu.tr Tel: 0 (224) 2941729 Uludağ Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü, 16059, BURSA
17	Website:	
18	Objective of the Course:	The purpose of this course is to teach the thermochemistry, the electronic structure of atoms, some atomic properties, chemical bonding of molecules, molecular geometry, properties of liquids and solids, intermolecular interactions, the physical properties of solutions, chemical equilibrium, and acid-base reactions
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Learn the heat exchange in chemical reactions.
	2	Learn the concept of orbital and the electron configuration of the atom.
	3	Learns the concepts of atomic radius, ionization energy and electron affinity.
	4	Learns the concepts of Together with the theory of chemical bonding find Lewis symbol and geometry of molecules, polar and non-polar molecules.
	5	Learns the concepts of liquid properties (surface tension, viscosity, vapor pressure), melting point, boiling point, phase diagrams, intermolecular interactions, hydrogen bonding.
	6	Learns the concepts the type and concentration of the solution, the solubility of gases, vapor pressure and the osmotic pressure of the solution, the solution to the freezing point depression and boiling point elevation.
	7	Learns the concepts equilibrium conditions, the equilibrium constant and equilibrium calculations.
	8	Learns the concepts modern acid-base theories, factors affecting the strength of acids and bases, pH scale.
	9	Learns the concepts ion concentration of weak acids and bases in aqueous solution to be calculated.

	10	

21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Thermochemistry	
2	Thermochemistry (cont.)	
3	Electronic Structure of Atoms	
4	Periodic table and some atomic properties	
5	Chemical Bonding I	
6	Chemical Bonding I (cont.)	
7	Midterm I	
8	Liquids, Solids and Intermolecular Forces	
9	Solutions and Physical Properties	
10	Solutions and Physical Properties (cont.)	
11	Midterm II	
12	Chemical Equilibrium	
13	Acids and Bases	
14	Acids and Bases (cont.)	

22	Textbooks, References and/or Other Materials:	General Chemistry I, Petrucci Harwood Herring. Palme Publishing

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	2	27.00	54.00
Others	0	0.00	0.00
Final Exams	1	40.00	40.00
Total Work Load			150.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			5.00

24	**ECTS / WORK LOAD TABLE**

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	2	50.00
Quiz	0	0.00
Home work project	0	0.00
Final Exam	1	50.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to		50.00
Contribution of Final Exam to Success Grade		50.00
Total		100.00
Measurement and Evaluation Techniques Used in the		

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	3	1	3	4	1	3	5	1	3	4	4	5	3	3	4	2
ÖK2	3	1	3	4	1	4	3	1	3	4	3	4	3	3	4	2
ÖK3	5	1	3	5	1	4	4	1	3	4	4	4	3	2	4	3
ÖK4	3	1	3	4	1	5	5	1	3	4	4	4	3	2	3	3

ÖK5	4	1	3	5	1	5	5	1	3	4	4	4	2	2	3	4
ÖK6	4	3	3	5	1	4	4	1	3	4	5	5	3	3	2	3
ÖK7	4	2	3	5	1	3	5	1	3	4	5	5	4	4	3	3
ÖK8	3	1	3	4	1	3	4	1	3	4	4	5	2	3	3	4
ÖK9	3	1	3	5	1	3	4	1	3	4	5	4	3	3	3	3

LO: Learning Objectives PQ: Program Qualifications

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