CHEMISTRY I

1	Course Title:	CHEMISTRY I
2	Course Code:	FEN1103
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. SEVGÜL ÇALIŞ
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Doç.Dr.SEVGÜL ÇALIŞ scalis@uludag.edu.tr 0 224 2942227
17	Website:	
18	Objective of the Course:	To consolidate and improve the chemistry knowledge acquired by students, to overcome their deficiencies and to show their applicability.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Knows the structure, properties and measurement of matter.
	2	Knows the laws of chemistry and calculations for the atom.
	3	Can use basic chemistry concepts in chemical calculations.
	4	Knows chemical compounds and chemical reactions.
	5	Gains chemical calculation qualifications.
	6	Knows chemical bonds, Lewis structures and geometries.
	7	Can write formulas of chemical compounds and name them.
	8	
	9	
	10	

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Definition of chemistry, historical development, importance, fields, effect on our life. Properties, classification and properties of matter, Separation methods	Making classroom practices and examples

2	Measurement of matter: SI (Metric) units, significant numbers	Introduction of materials used in the laboratory
3	Measurement studies with pipette, burette and thermometer,	Measurement studies with pipette, burette and thermometer,
4	Atoms and electron structure of atom, atomic nucleus, atomic theories,	Filtration with funnel and separation with separating funnel
5	Introduction to the periodic table, classification of elements (metals, nonmetals, noble gases, halogens), Periodic properties.	Making classroom practices and examples
6	Kimyasal bileşik türleri ve formülleri, adlandırma, mol kavramı	Making classroom practices and examples
7	Chemical reactions, Chemical equation and stoichiometry	Measurement studies with scales and density determination with pyknometer
8	stoichiometry	Making classroom practices and examples
9	Chemical reactions in solution, Theoretical yield, real yield, percentage yield	Making classroom practices and examples
10	Acids and bases (Arhenius, Brönsted Lowry, Lewis acid-base definition)	Making classroom practices and examples
11	Chemical bonds, Lewis theory, ionic bond, covalent bond	Making classroom practices and examples
12	Writing Lewis structures, formal load. Molecular geometry	Making classroom practices and examples
13	Intermolecular interactions (Liquids, solids, gases)	Making classroom practices and examples
14	Physical properties and separation of solutions (methods of separating chemicals in	Making classroom practices and examples

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	1.00	14.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Home work project	1	10.00	10.00
Others	0	0.00	0.00
Final Exams	1	10.00	10.00
Total Work Load			90.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

Total	100.00
Measurement and Evaluation Techniques Used in the Course	

23 Assesment

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Midterm exams	0	0.00
Final Exams	2	100.00
Total		
Success Grade		

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

ÖK3	5	0	0	5	5	0	0	0	5	5	0	0	0	0	0	0
ÖK4	5	0	0	5	5	0	0	0	5	5	0	0	0	0	0	0
ÖK5	5	0	0	5	5	0	0	0	5	5	0	0	0	0	0	0
ÖK6	5	0	0	5	5	0	0	0	5	5	0	0	0	0	0	0
ÖK7	5	0	0	5	5	0	0	0	5	5	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**