Course Syllabus

Code - Course Title	**KİM143 - Basic Chemistry I**
Course Type	I. SEMESTER
Laboratory + Practice	2+2
ECTS	**4.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	DR. ÖĞR. ÜYESİ SİBEL BÜYÜKTİRYAKİ

Mode of Delivery	This course will only face-to-face training.
Recommended Resources	Genel kimya 1,2 Petrucci, Harwood Palme yayınevi, Genel Kimya Raymond Chang, Palme yayınevi.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		What is science? What is scientific thought and scientific method? Chemistry as basic science.	
Week - 2		Matter properties and measurement, basic laws, measurement systems, metric units, uncertainty in calculations and measurements, meaningful numbers.	
Week - 3		Law of conservation of mass (Lavoiser), law of constant ratios, Dalton atomic theory, law of multiple proportions, structure of atom, atomic mass, mole concept.	
Week - 4		Atoms and atomic theory, molecular logic of life, chemical compounds.	
Week - 5		Chemical reactions I.	
Week - 6		Chemical reactions II.	
Week - 7		Introduction to aqueous solution reactions.	
Week - 8		Aqueous solution reactions, the importance of water for living things, osmosis.	
Week - 9		Solution preparation, solution concentration units (percentage concentration units, molarity, molality etc.).	
Week - 10		Gases, properties of gases, gas pressure, gas laws, ideal gas, gas mixtures, partial pressures.	
Week - 11		Electron structure of the atom, electromagnetic spectrum.	
Week - 12		Periodic system, periodic properties of atoms.	
Week - 13		Chemical bond and bond theories I.	
Week - 14		Chemical bond and bond theories II.	

Learning Outcomes

#	Learning Outcome
1	Learns basic level of general chemistry subjects.
2	Learns the properties and measurement of matter, atoms and atomic theory, molecular logic of life, chemical compounds.
3	Learns chemical reactions, aqueous solutions and reactions.
4	Learns the electron structure of atom, elements, periodic table, chemical bonds.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	30
Final Exam	1	50
Homework	1	20
	Sum (%)	**100**