

Vocational School / Medical Laboratory Techniques

2023 - 2024 Academic Year

BASIC CHEMISTRY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
BASIC CHEMISTRY	TLT1141970	Fall Semester	2+0	2	4
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	Short Cycle (Associate's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Büşra Nur ÇATTIK				
Name of Lecturer(s)	Assist.Prof. Ümit Can ERİM				
Assistant(s)					
Aim	To teach general information about process, current concepts, and computation methods in chemistry of science.				
Course Content	This course contains; Properties and measurement of matter,SI fundamental units,Atomic structure and periodic table,Nomenclature of compounds,Overview of chemical bonding and bond types,Mole relations and stoichiometry in chemical reactions,Finding percentage of component in compounds.,To find the molecular formula: Concepts of molecular and basic formula.,Mass conservation in chemical reactions.,Characteristics of gases and Ideal gas law (1),Characteristics of Gases and Ideal gas law (2), solids and liquids (1),Solubility and calculating concentration,Acid-base equilibrium in aqueous solutions,Radioactive matters and radioactivity,Organic chemistry.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
List the basic principles and theoretical guidelines of chemistry.			12, 16, 9	A, C	
Define the chemical equations.			12, 16, 9	A, C	
Tell the basic law of chemistry.			12, 16, 9	A, C	
Performs chemical calculations			12, 16, 9	A, C	
Teaching Methods	12: Problem Solving Method, 16: Question - Answer Technique, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, C: Multiple-Choice Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Properties and measurement of matter,SI fundamental units				
2	Atomic structure and periodic table				
3	Nomenclature of compounds				
4	Overview of chemical bonding and bond types				
5	Mole relations and stoichiometry in chemical reactions				
6	Finding percentage of component in compounds.				
7	To find the molecular formula: Concepts of molecular and basic formula.				
8	Mass conservation in chemical reactions.				
9	Characteristics of gases and Ideal gas law (1)				
10	Characteristics of Gases and Ideal gas law (2), solids and liquids (1)				
11	Solubility and calculating concentration				
12	Acid-base equilibrium in aqueous solutions				
13	Radioactive matters and radioactivity				
14	Organic chemistry				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources
General chemistry notes will be given to the students.1. General Chemistry: Principles and Modern Applications/ Petrucci, Harwood, Herring Palme Yayınları(10th Edition).