

School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

GENERAL CHEMISTRY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
GENERAL CHEMISTRY	PHA1112086	Fall Semester	4+0	4	6
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Sema KOYUTÜRK				
Name of Lecturer(s)	Assist.Prof. Sema KOYUTÜRK				
Assistant(s)					
Aim	This course offered in the fall semester, lays the foundation for all subsequent study in chemistry.				
Course Content	This course contains; Matter, Atom and Atomic Theory,Chemical Compounds,Chemical Reaction,Introduction to Reactions in Aqueous Solution,Gases,Thermochemistry,Electrons in Atom,The Periodic Table and Same Atomic Properties,Chemical Bonding I,Chemical Bonding II,Intermolecular Forces: Liquids and Solids,Solutions and Their Physical Properties,Principles of Chemical Equilibrium,Acids and Bases.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1) Repeat main subjects of general chemistry with updated knowledge.			12, 14, 16, 6, 9	A, E, H	
2) Define the chemical compounds and interpret their reactions and their role in reactions.			12, 14, 16, 6, 9	A, E, H	
3) Evaluate the gas laws			12, 14, 16, 6, 9	A, E, H	
4) Recognize the interactions between atoms and molecules			12, 14, 16, 6, 9	A, E, H	
5) Asses the solution properties and solution components			12, 14, 16, 6, 9	A, E, H	
6) Interpret the temperature, heat and work relation in chemical reactions			12, 14, 16, 6, 9	A, E, H	
7) Evaluates the bond theories			12, 14, 16, 6, 9	A, E, H	
8) Evaluates the chemical equilibrium conditions			12, 14, 16, 6, 9	A, E, H	
9) Recognizes the acids and bases reactions.			12, 14, 16, 6, 9	A, E, H	
Teaching Methods	12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 6: Experiential Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, E: Homework, H: Performance Task				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Matter, Atom and Atomic Theory	General Chemistry - Chapter 1 and 2			
2	Chemical Compounds	General Chemistry - Chapter 3			
3	Chemical Reaction	General Chemistry - Chapter 4			
4	Introduction to Reactions in Aqueous Solution	General Chemistry - Chapter 5			
5	Gases	General Chemistry - Chapter 6			
6	Thermochemistry	General Chemistry - Chapter 7			
7	Electrons in Atom	General Chemistry - Chapter 8			
8	The Periodic Table and Same Atomic Properties	General Chemistry - Chapter 9			
9	Chemical Bonding I	General Chemistry - Chapter 10			
10	Chemical Bonding II	General Chemistry - Chapter 11			
11	Intermolecular Forces: Liquids and Solids	General Chemistry - Chapter 12			
12	Solutions and Their Physical Properties	General Chemistry - Chapter 14			
13	Principles of Chemical Equilibrium	General Chemistry - Chapter 16			
14	Acids and Bases	General Chemistry - Chapter 17			
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources

1- Chemistry (Raymond Chang and Kenneth A. Goldsby, 12th edition)1- General Chemistry: The Essential Concepts, Raymond Chang. McGraw-Hill