SUBJECT TEACHING GUIDE

G1912 - Chemistry

Degree in Biomedical Sciences

Academic year 2026 - 2027

1. IDENTIFYING DATA					
Degree	Degree in Biomedical Sciences			Type and Year	Core. Year 1
Faculty	Faculty of Medicine				
Discipline	Chemistry				
Course unit title and code	G1912 - Chemistry				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Knowledge Field	Biomedical sciences				
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERIAS QUIMICA Y BIOMOLECULAR
Name of lecturer	NAZELY DIBAN-IBRAHIM GOMEZ
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Other lecturers	MARIA JESUS LUCAS GAY FERNANDO PARDO PARDO LORENA GONZALEZ LEGARRETA GUILLERMO DIAZ SAINZ FRANCISCO CALDERON CELIS

4. OBJECTIVES

To be able to identify the basic concepts of chemistry of life: chemical elements, chemical species, chemical reactions, thermochemistry, kinetics, relationship structure - properties-functions.

To be able to Distinguish the fundamental laws of chemistry.

To be able to solve case studies corresponding to chemistry in biological systems (biological chemistry) and chemistry in humans who have suffered diseases (medical chemistry)

6. SUBJECT PROGRAM

CONTENTS	
1	Block 1: Fundamental Principles of Chemistry Topic 1. Fundamentals of thermodynamics and equilibrium in relation to biological systems. Topic 2. Fundamentals of chemical reactions. Stoichiometry. Topic 3. Oxidation-reduction in biological systems.
2	Block 2: Fundamentals of Biological Chemistry Topic 4. Fundamentals of organic chemistry. Topic 5. Reactivity of organic compounds. Examples of chemical reactions of interest in biomedicine. Topic 6. Chemistry of biological processes and applications in biomedicine. Topic 7. Chemical analysis.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessment	%
laboratory portfolio	Others	No	No	30,00
objetive test 1	Written exam	No	Yes	35,00
Objetive test 2	Written exam	No	Yes	35,00
TOTAL				100,00

Observations

In order to be evaluated, it will be necessary to carry out the laboratory practises

The examination regulations will apply in full to all assessment tests, specifically with regard to the USE OF ILLEGAL DEVICES AND THE PENALTY SYSTEM. (https://web.unican.es/estudiantesuc/normativa-academica/normativa-estudios-de-grado)

During the tests, mobile phones, smartwatches and any other devices capable of taking photographs or communicating with other people inside or outside the classroom must be left in rucksacks or bags.

Evaluation methodologies may be accommodated in non-face-to-face evaluation if necessary

Observations for part-time students

The specific procedures will be established in coordination with the student and the degree coordinator (artículo 24 del REGLAMENTO DE LOS PROCESOS DE EVALUACIÓN DE LA UNIVERSIDAD DE CANTABRIA)

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- Raymond Chang, QUIMICA, décima edición, McGraw Hill, 2013
- Crowe J, Bradshaw T. Chemistry for the Biosciences: The Essential Concepts. 4th ed. Oxford University Press; 2021
- Yurkanis Bruice, P. FUNDAMENTOS DE QUIMICIA ORGANICA, 3ª ed., 762pp. Pearson, 2016