

SUBJECT TEACHING GUIDE

G4 - Metabolic and Structural Biochemistry

Degree in Medicine

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Degree in Medicine			Type and Year	Core. Year 1
Faculty	Faculty of Medicine				
Discipline	Basic Subject Area: Biochemistry Morphology, Structure and Function of the Human Body				
Course unit title and code	G4 - Metabolic and Structural Biochemistry				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web	http://aulavirtual.unican.es				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. BIOLOGIA MOLECULAR
Name of lecturer	MARIA DOLORES DELGADO VILLAR
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Other lecturers	JOSE CARLOS RODRIGUEZ REY MARIA TERESA GARCIA UNZUETA ALBERTO SANCHEZ DIAZ MAGDALENA MARIA FOLTMAN FLOR MARIA PEREZ CAMPO LAURA RUIZ PEINADO ALBERTO GONZALEZ GONZALEZ

3.1 LEARNING OUTCOMES

- The student should understand the structure and functions of the major molecules involved in metabolic reactions. They will understand how changes in the structure affect its function and will end the course with a complete idea of metabolism. This includes not only a detailed knowledge of major metabolic pathways but also their coordinated regulation. An introduction to laboratory work will also be included.

4. OBJECTIVES

Most diseases are the consequence of molecular changes and in order to understand the basis of pathological processes it is important to have a solid knowledge of Biochemistry. The major aim of this course on Biochemistry is to provide the medical student with the basic knowledge to understand the molecular logic of health and disease. Biochemistry has an experimental nature and thus laboratory lessons are an important part of the course.

6. SUBJECT PROGRAM

CONTENTS

1	Biomolecules, carbohydrates, lipids, membranes, aminoacids, proteins, enzymes.
2	Metabolism. Major pathways and regulation.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
The practical test will include questions of laboratory lessons.	Written exam	No	Yes	10,00
The first test, corresponding to structural biochemistry, will take place in november.	Written exam	No	Yes	35,00
The second test, corresponding to metabolic biochemistry, will take place in january.	Written exam	No	Yes	45,00
Personal work will account for one tenth of total score.	Work	No	No	10,00
TOTAL				100,00
Observations				
Final score will be the addition of the scores of the exams (4.5 points each) and of the student's personal work (1 point).				
Observations for part-time students				
None				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Lehninger Principles of Biochemistry. 7ª edición. Editorial Omega 2018.
Harper. Bioquímica ilustrada. McGraw-Hill 2014.