

SUBJECT TEACHING GUIDE

447 - Structure of Macromolecules

University Master's Degree in Molecular Biology and Biomedicine

Academic year 2023-2024

| 1. IDENTIFYING DATA | | | |
|----------------------------------|---|------------------|--------------------|
| Degree | University Master's Degree in Molecular Biology and Biomedicine | Type and Year | Optional. Year 1 |
| Faculty | Faculty of Medicine | | |
| Discipline | Optional Subjects Module | | |
| Course unit title and code | 447 - Structure of Macromolecules | | |
| Number of ECTS credits allocated | 5 | Term | Semester based (1) |
| Web | | | |
| Language of instruction | English | Mode of delivery | Face-to-face |

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|------------------|--|
| Department | DPTO. BIOLOGIA MOLECULAR |
| Name of lecturer | IGNACIO MARIA ARECHAGA ITURREGUI |
| E-mail | ignacio.arechaga@unican.es |
| Office | Facultad de Medicina. Planta: + 1. DESPACHO DE JOSE PEDRO VAQUE DIEZ (1095) |
| Other lecturers | FERNANDO DE LA CRUZ CALAHORRA GABRIEL MONCALIAN MONTES MARIA PILAR GARCILLAN BARCIA MARIA JESUS LUCAS GAY MARIA ELENA CABEZON NAVARRO FERNANDO MORO PEREZ |

3.1 LEARNING OUTCOMES

--Understanding experimental approaches for the determination of the three-dimensional structure of biological macromolecules

4. OBJECTIVES

- 1.- Understanding the basics of the structure of macromolecules
- 2.- Introduction to the experimental methods used in the determination of the three-dimensional structure of macromolecules

6. COURSE ORGANIZATION

CONTENTS

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| 1 | <ul style="list-style-type: none"> - 30 h Seminars - 10 h Practicals in laboratory - 10h Practicals in classroom |
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7. ASSESSMENT METHODS AND CRITERIA

| Description | Type | Final Eval. | Reassessn | % |
|--|-----------|-------------|-----------|---------------|
| Students will give a shor-talk about one of the topics treated in this course | Oral Exam | Yes | Yes | 30,00 |
| Students will be evaluated by the active participation in seminars, debates and practical sessions | Others | No | No | 10,00 |
| -Assitance to seminars and active participation | Others | No | Yes | 60,00 |
| TOTAL | | | | 100,00 |
| Observations | | | | |
| Observations for part-time students | | | | |
| Part time students unable to attend seminars will have to do an individual report in one of the topics. In any case, the oral exam, consisting of a PowerPoint presentation, is compulsory. | | | | |

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

GÓMEZ-MORENO, C Y SANCHO, J (COORDINADORES) "ESTRUCTURA DE PROTEÍNAS". ED. ARIEL 2003
 CREIGHTON, T . "PROTEINS. STRUCTURE AND MOLECULAR PROPERTIES" 2ª ED. FREEMAN. 1993
 BRANDEN, TOOZE. "INTRODUCTION TO PROTEIN STRUCTURE" 2ª ED. GARLAND 1999
 LESK, A. "AN INTRODUCTION TO PROTEIN ARCHITECTURE: THE STRUCTURAL BIOLOGY OF PROTEINS." OXFORD UNIVERSITY PRESS, 2001
 KYTE "STRUCTURE IN PROTEIN CHEMISTRY", GARLAND 1995
 DARBY, CREIGHTON "PROTEIN STRUCTURE" IRL PRESS. OXFORD UNIVERSITY PRESS 1993
 RHODES, G "CRYSTALLOGRAPHY MADE CRYSTAL CLEAR". 2ª ED. ACADEMIC PRESS 2000