

SUBJECT TEACHING GUIDE

M1580 - Genetic Engineering and Biotechnology

University Master's Degree in Molecular Biology and Biomedicine

Academic year 2022-2023

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	M1580 - Genetic Engineering and Biotechnology		
Number of ECTS credits allocated	5	Term	Semester based (1)
Web			
Language of instruction	English	Mode of delivery	Face-to-face

Department	DPTO. BIOLOGIA MOLECULAR
Name of lecturer	MARIA JESUS LUCAS GAY
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Other lecturers	JESUS NAVAS MENDEZ MARIA ANGELES ROS LASIERRA FERNANDO DE LA CRUZ CALAHORRA FERNANDO SALMON MUÑIZ MATXALEN LLOSA BLAS MONICA LOPEZ FANARRAGA GABRIEL MONCALIAN MONTES MARIA PILAR GARCILLAN BARCIA BERTA CASAR MARTINEZ ANA HERRERO MIER MARTA ROBLEDO GARRIDO GUILLERMO ABASCAL PALACIOS

3.1 LEARNING OUTCOMES

- Ability to critically read and interpret recent scientific works on Genetic Engineering and Biotechnology.
- Acquisition of updated knowledge about the main topics in Molecular Biology and Biomedicine

4. OBJECTIVES

This course aims to give students an overview of current issues in Genetic Engineering and Biotechnology.

6. COURSE ORGANIZATION

CONTENTS

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| 1 | <ul style="list-style-type: none"> 1- Genetic engineering now and then 2- Classical methods for genetic engineering 3- Genetic engineering in humans 4- Genetic engineering bioinformatic session 5- Protein biotechnology 6- Green and synthetic biotechnology 7- Biomedical biotechnology 8- Human organoids and bioethical concerns 9- The future of biotechnology |
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7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Assistance and participation in class	Others	No	Yes	30,00
Continuous assessment through test questions in class	Activity evaluation with Virtual Media	No	No	30,00
Oral presentation	Oral Exam	Yes	Yes	40,00
TOTAL				100,00

Observations

The unjustified absence to more than two days of classes will suppose failing the subject. Justified absences will be recoverable by completing a written work assigned by the teacher responsible for the subject.

Observations for part-time students

Part-time students must do a written work assigned by the teacher responsible for the subject. In any case, they must take the compulsory tasks on the Moodle platform, and attend the oral exam, which consists of a PowerPoint presentation of a topic related to the program of the subject.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Molecular Biotechnology: Principles and Applications of Recombinant DNA. Sixth Edition (2022). Bernard R. Glick, Cheryl L. Patten. ASM Press. ISBN 978-1-68367-364-4

