UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: BIOLOGY
Type: BASIC
Degree: 340 - UNDERGRADUATE DEGREE PROGRAMME IN ENVIRONMENTAL SCIENCES
Center: 501 - FACULTY OF ENVIRONMENTAL SCIENCES AND BIOCHEMISTRY
Year: 1
Main language: Spanish
Use of additional languages:
Web site:

Code: 37300
ECTS credits: 9
Academic year: 2019-20
Group(s): 40
Duration: AN
Second language:
English Friendly: Y
Bilingual: N

Lecturer: **LAURA SERNA HIDALGO** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
sabatini/030	CIENCIAS AMBIENTALES	5467	laura.serna@uclm.es	Lunes, martes y miércoles de 12:00-14:00.

2. Pre-Requisites

None.

3. Justification in the curriculum, relation to other subjects and to the profession

This subject, within the Plan of Studies of Degree in Environmental Sciences, allows to acquire competences for access to 2nd year subjects (Animal Physiology, Toxicology and Public Health and Plant

4. Degree competences achieved in this course

Course competences

Code	Description
CB01	Prove that they have acquired and understood knowledge in a subject area that derives from general secondary education and is appropriate to a level based on advanced course books, and includes updated and cutting-edge aspects of their field of knowledge.
CB03	Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.
CB06	Students have developed the ability to work as a team and lead, direct, plan and supervise multidisciplinary teams
E01	Ability to understand and apply basic knowledge.
E05	Capacity for qualitative data interpretation
E06	Capacity for quantitative data interpretation
G02	Knowledge of Information and Communication Technologies (ICT).
G03	Good oral and written communication

5. Objectives or Learning Outcomes

Course learning outcomes

Description

To train the student in the understanding and application of the scientific method to the study of biological systems at the molecular and cellular levels.

To know the concepts and principles that govern molecular and cellular processes and the mechanisms that underlie complex cellular processes, particularly those associated with cellular excitability and signal exchange that allow cells to interact with the external environment.

6. Units / Contents

Unit 1: Perpetuation of genetic information.
Unit 2: Gene expression.
Unit 3: Protein biosynthesis.
Unit 4: Origin and evolution of organisms, from the cell to multicellular organisms.
Unit 5: Structure and membrane transport. Energy production.
Unit 6: Compartments and intracellular transport.
Unit 7: Cell cycle control.
Unit 8: Laboratory classes.

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	R	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB01 CB03 E01 G02	1.88	47	N	-	-	
Project or Topic Presentations [ON-SITE]	Workshops and Seminars	CB01 CB03 CB06 E05 E06 G02 G03	0.4	10	Y	N	N	
Class Attendance (practical) [ON-SITE]	Practical or hands-on activities	CB06 E05 E06	1.2	30	Y	Y	N	
Study and Exam Preparation [OFF-SITE]		CB06 E01 E06	5.4	135	N	-	-	
Final test [ON-SITE]	Assessment tests	CB01 CB03 E01 E05 E06	0.12	3	Y	Y	Y	
		Total:	**9**	**225**				
		Total credits of in-class work: 3.6						**Total class time hours: 90**
		Total credits of out of class work: 5.4						**Total hours of out of class work: 135**

As: Assessable training activity
Com: Training activity of compulsory overcoming
R: Rescheduling training activity

8. Evaluation criteria and Grading System

	Grading System		
Evaluation System	**Face-to-Face**	**Self-Study Student**	**Description**
Final test	70.00%	0.00%	Final test to assess theoretical knowledge
Test	20.00%	0.00%	Final test of laboratory sessions
Oral presentations assessment	10.00%	0.00%	Oral presentation
Total:	**100.00%**	**0.00%**	

Evaluation criteria for the final exam:

It is mandatory to obtain a score equal to or higher than 4 out of 10 in the final test to add the other evaluable part (oral presentation). A minimum of 5 out of 10 in "the final test + oral presentation" is required to pass the subject.

It is compulsory to pass the laboratory sessions (compulsory attendance and exam mark must be equal to or higher than 5/10) to pass the subject.

Specifications for the resit/retake exam:

The marks obtained in the final test, laboratory sessions, and oral presentation will be kept until this call.

For this call, only the final test and the laboratory sessions evaluation test can be re-taken, applying for the other section (oral presentation) the marks obtained during the duration of the course.

Specifications for the second resit / retake exam:

To pass this examination there will be only a final test that will represent 100% of the mark. It will be an essential requirement to have previously performed the laboratory sessions.

9. Assignments, course calendar and important dates

Not related to the syllabus/contents

Hours	hours
Final test [PRESENCIAL][Assessment tests]	3

Unit 1 (de 8): Perpetuation of genetic information.

Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	6.25
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	1
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.3
Study and Exam Preparation [AUTÓNOMA][]	15

Unit 2 (de 8): Gene expression.

Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	6
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	2
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.3
Study and Exam Preparation [AUTÓNOMA][]	15

Unit 3 (de 8): Protein biosynthesis.

Activities	Hours

Class Attendance (theory) [PRESENCIAL][Lectures]	6
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	1
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.3
Study and Exam Preparation [AUTÓNOMA][]	15
Unit 4 (de 8): Origin and evolution of organisms, from the cell to multicellular organisms.	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	6
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	2
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.3
Study and Exam Preparation [AUTÓNOMA][]	15
Unit 5 (de 8): Structure and membrane transport. Energy production.	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	5.5
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	1
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.3
Study and Exam Preparation [AUTÓNOMA][]	15
Unit 6 (de 8): Compartments and intracellular transport.	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	5.5
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	2
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.3
Study and Exam Preparation [AUTÓNOMA][]	20
Unit 7 (de 8): Cell cycle control.	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	6
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	1
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4.2
Study and Exam Preparation [AUTÓNOMA][]	20
Unit 8 (de 8): Laboratory classes.	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	5.75
Study and Exam Preparation [AUTÓNOMA][]	20
Global activity	
Activities	**hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	47
Project or Topic Presentations [PRESENCIAL][Workshops and Seminars]	10
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	30
Study and Exam Preparation [AUTÓNOMA][]	135
Final test [PRESENCIAL][Assessment tests]	3
Total horas:	225

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Alberts et al.	Introducción a la biología celular	EDITORIAL MÉDICA PANAMERICANA			2011	
Alberts et al.	Molecular Biology of the Cell	HARDCOVER			2016	
H. Curtis y N. S. Barnes	Biología.	EDITORIAL MÉDICA PANAMERICANA			2008	