

Genes and Society

Code: 106225
ECTS Credits: 6

Degree	Type	Year	Semester
2504235 Science, Technology and Humanities	OB	3	1

Contact

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Teaching groups languages

You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Carlos Tabernero Holgado

External teachers

Rafael Montiel

Prerequisites

Those of the degree.

Objectives and Contextualisation

This subject aims to learn about the phenomena of inheritance and its variability, both normal and pathological. It

Competences

- Explain the basic concepts related to life, its origin and evolution, especially those referring to health and illness throughout history.

- Relate terrestrial dynamics and the variable of time in the terrestrial, atmospheric and climatic processes, and identify the problems generated by use of natural resources on the part of humans.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

Learning Outcomes

1. Analyse the mechanisms that generate biological diversity in our species and interpret their adaptive significance and the mechanisms that maintain this diversity.
2. Apply the knowledge acquired in complex or professional work settings.
3. Identify your own training needs in the field of study, work or professional practice, and organise your own learning.
4. Relate the different living beings to each other and to their surroundings.

Content

- Historical remarks of heredity.
- Genetic material and DNA structure.
- Epigenetics and environmental factors.
- Genetic variation.
- Monogenic and complex characters.
- Mutation and effects.
- Polymorphisms.
- Genetic bases of the disease.
- Genetic selection.
- Genetic, medical and industrial modification.
- Regulations.
- Genetic discrimination.

Methodology

The teaching methodology will take advantage of the tools provided by the UAB Virtual Campus. To achieve the objectives of the subject, three types of learning activities are proposed: sessions with the whole group, seminars with half the group and independent work in small groups on a scientific article.

Sessions with the whole group: Students acquire specific knowledge of the subject by attending classes, supplementing them with personal study. These classes are conceived as expository sessions by the teaching staff, but the active participation of students is also encouraged to establish debates or collective reflections. In the classes, digital presentations are used to help the understanding of the contents, which are available on the UAB virtual campus.

Seminars: The knowledge developed in the sessions with the whole group and worked on in the personal study are applied to the resolution of practical cases and in the discussion of original research works published in international journals. The practical cases are presented in the form of problems or questions, which are worked on in small groups. This type of methodology makes it possible to reinforce and deepen the topics worked on in the sessions with the whole group.

Independent work in small groups on an article: It is proposed to carry out a work in small groups that is prepared outside the classroom and that involves documentation tasks and group discussion on a topic of human genetics. The tutorials will guide students on how to do this work.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classroom Practice	16	0.64	2, 3, 4
In-person lessons	33	1.32	1, 2, 3
Type: Supervised			
Tutorials	5	0.2	3, 4
Type: Autonomous			
Bibliographic research	7	0.28	1, 2, 3, 4
Personal study	55	2.2	1, 2, 3, 4
Repor writing	15.5	0.62	1, 2, 3, 4
Scientific text reading	16	0.64	

Assessment

Assessment:

Continuous assessment.

- a) Two written tests: each test 25% of the final grade (both 50%). The minimum grade to pass the subject will be
 - b) Assignment of the activities completed in class: 20% of the final grade
 - c) Work in small groups: 30% of the final mark. This evaluation will take i
- In order to pass the subject, you must get at least a 5 in the final grade. /

To participate in the recovery, students must have previously been assessed in a set of activities whose weight is 100%. The student will receive the grade of 'Not assessable' as long as he has not reached 100%.

Unique assessment.

The single assessment consists of a single summary test that includes the contents of the entire theory program.

At the time of carrying out each assessment activity, the teacher will inform the students (Moodle) of the procedure.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Individual tasks during the academic course	20	0.5	0.02	1, 2, 3, 4
Work team presentation	30	0	0	1, 2, 3
mid-term exams, and final exam	50	2	0.08	1, 2, 3, 4

Bibliography

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•<http://www.ncbi.nlm.nih.gov/omim>

•<http://ghr.nlm.nih.gov>

•<http://www.genome.gov>

Programari

This course does not require a specific program

Software

This course does not require a specific program