

History of Genetics

Code: 103628
ECTS Credits: 3

2024/2025

Degree	Type	Year
2502442 Medicine	OT	2

Contact

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Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

There is no prerequisite.

Objectives and Contextualisation

The subject of History of Genetics is studied in the 2nd course of the Degree in Medicine as an optional subject.

The main objectives of the subject are:

To introduce the student to the consideration and experimentation of hist

documentation and scientific popularization, and as a pedagogical tool in the fields of science and medicine.

Within the specific field of the history of genetics, to give the student the necessary tools to identify and critically a

To introduce the student to the historical processes of generation, circula

in sociocultural transformations throughout history.

To introduce the student to the analysis of the role and situation of genet

strategic and economic importance of genetics and genomics in the life sciences, health and society.

And so, to give the student the necessary tools to synthesize, from the historical exploration of genetics, a perspe

Competences

- Communicate clearly, orally and in writing, with other professionals and the media.
- Critically assess and use clinical and biomedical information sources to obtain, organise, interpret and present information on science and health.
- Demonstrate basic research skills.
- Demonstrate knowledge of the historical principles underlying health, illness and the medical profession.
- Demonstrate understanding of the importance and the limitations of scientific thought to the study, prevention and management of diseases.
- Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
- Use information and communication technologies in professional practice.

Learning Outcomes

1. Communicate clearly, orally and in writing, with other professionals and the media.
2. Define the factors determining healthcare transition in today's world.
3. Demonstrate a diachronic vision of healthcare institutions and the healthcare strategies implemented.
4. Demonstrate basic research skills.
5. Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
6. Identify changes and continuities in the forms and contents of the medicalisation process.
7. Identify the origins and the institutionalisation of scientific activity, and the epistemological bases of scientific thought in the health sciences.
8. Identify the processes of professionalisation in the field of the health sciences and the tendency towards specialisation.
9. Make correct use of databases and works of reference (bibliographies, encyclopedias, and dictionaries) in the health sciences.
10. Recognise and distinguish the different medical traditions that make up the current health panorama.
11. Recognise health and illness as socially determined constructions that change over time.
12. Recognise the scope and the limitations of scientific thought in the health sciences.
13. Understand medical science as knowledge in construction, subject to constant change, posing new challenges and opportunities.
14. Use information and communication technologies in professional practice.

Content

History as a vehicle for reflection / cultural construction, as a tool for scientific research, documentation and popularisation of science and medicine.

Within the specific field of the history of genetics, identify and analyze critically the main historiographical currents;
Develop a historical vision of genetics, identifying and characterizing the

communication and management of scientific (genetic) knowledge,

as well as its intervention in sociocultural transformations throughout history.

of genetics and genomics in the life sciences, health and society.

And so, give the student the necessary tools to synthesize, from the historical advance of genetics, a perspective

Distributive blocks

- A. Introduction to the history of genetics within the field of the history of s
- B. Inheritance throughout history. Concepts and sociocultural relations (u
- C. The two cultures and the pillars of contemporary biology (nineteenth c
- D. From Mendel to the Synthetic Theory of Evolution. Genetics and the h
- E. The development of molecular biology: individuals, society and inform
- F. Genetics, genomics, sociobiology: debates and challenges.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
THEORY (TE)	20	0.8	1, 2, 4, 3, 5, 13, 6, 7, 8, 11, 10, 12, 9, 14
Type: Supervised			
TUTORIALS	11.25	0.45	1, 2, 4, 3, 5, 13, 6, 7, 8, 11, 10, 12, 9, 14
Type: Autonomous			
TASK DEVELOPMENT / PERSONAL STUDY / PAPER READING / INTEREST REPORTS	40	1.6	1, 2, 4, 3, 5, 13, 6, 7, 8, 11, 10, 12, 9, 14

Directed activities (26.7% = 20 hours): Theoretical classes / discussion sessions with ICT support.

Supervised activities (15% = 11.25 hours): Individual problem solving and

Autonomous activities (53.3% = 40 hours): Individual study, bibliography

Description (directed and supervised activities: theoretical classes and di

Block A. Introduction to the history of genetics within the scope of the his

Bloc B. Inheritance throughout history. Concepts and socio-cultural relati

Bloc C. The two cultures and the pillars of contemporary biology (ninete

Bloc D. From Mendel to the Synthetic Theory of Evolution. Genetics and

Bloc E. The development of molecular biology: individual, society and inf

Bloc F. Genetics, genomics, sociobiology: debates and challenges: 1 cla

Deliveries: Final written essay in relation to a specific topic integrated in t

via virtual campus or email.

Note: 15 minutes of a class will be reserved, within the timetable established by the centre/title, for the compleme

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Short essay 1	30%	1	0.04	1, 2, 4, 3, 5, 13, 6, 7, 8, 11, 10, 12, 9, 14
Short essay 2	30%	1	0.04	1, 2, 4, 3, 5, 13, 6, 7, 8, 11, 10, 12, 9, 14
Written evaluation through reports	40%	1.75	0.07	1, 2, 4, 3, 5, 13, 6, 7, 8, 11, 10, 12, 9, 14

The evaluation of the subject is continuous in relation to:

- Active participation in class discussions, which will include two short es:
- The preparation of a brief final written essay (40% of the final grade) on

any subject related to the history of genetics.

For the evaluation to be effective, the students must pass each of the difl

whose weight equals a minimum of two thirds of the total grade of the subject. In addition, to participate in the res

Students who do not take the theoretical and practical assessment tests will be considered as not evaluated and

On carrying out each evaluation activity, lecturers will inform students (on Moodle) of the procedures to be followed for reviewing all grades awarded, and the date on which such a review will take place.

Students will obtain a "Not assessed/Not submitted" course grade unless they have submitted more than 30% of the assessment items.

In the event of a student committing any irregularity that may lead to a significant variation in the grade awarded to an assessment activity, the student will be given a zero for this activity, regardless of any disciplinary process that may take place. In the event of several irregularities in assessment activities of the same subject, the student will be given a zero as the final grade for this subject.

Single evaluation:

If necessary, a single assessment test will be carried out for those students who, for justified reasons, cannot take the continuous assessment tests of the subject (essays and participation in class debates). This test will consist of the preparation, in person, at a date, time and classroom to be determined, of a brief final written essay (in this case 100% of the mark) in relation to a specific topic integrated into the contents and competences of the subject, and in which the student must demonstrate his/her ability to historically situate and critically analyze any problem related to the history of genetics. The teaching staff will assist students who require a single assessment with a specific tutorial related to each of the main blocks.

The students who take advantage of the single evaluation and who do not take the indicated test will be considered as "Not evaluated", exhausting the rights to enroll in the subject.

Bibliography

Bibliographic sources of digital access will be provided during the semester. However, below are reference works that may also be used.

Essential references

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- NIETO GALAN, Agustí (2011) Los públicos de la ciencia. Expertos y profanos a través de la historia. Madrid: Marcial Pons.
- SECORD, James (2004) Knowledge in Transit, *Isis* 95, 654-672
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Software

In addition to web and Office tools, such as the campus online, email, Google docs, word, powerpoint and excel,

Language list

Name	Group	Language	Semester	Turn
(TE) Theory	101	Catalan/Spanish	second semester	morning-mixed