

Forensic Anthropology

Code: 100753
ECTS Credits: 3

2024/2025

Degree	Type	Year
2500004 Biology	OT	4

Contact

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Teachers

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Teaching groups languages

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

Prerequisites

There are no official prerequisites, but it is assumed that the student has previously acquired enough solid knowledge on subjects like Genetics and Human biology

Objectives and Contextualisation

The course of forensic anthropology is designed to provide students the basic tools to manage biological information about personal identification. It is based on the application of knowledge of physical anthropology and human biology to medical and legal aspects, basically identification. We work at morphological, osteological, biochemical and molecular level. The work identifying both individual and collective lives of individuals, as the recent and ancient corpses. The emphasis in both forensic application, as in the reconstruction of ancient populations.

In this regard the course aims to:

- Understanding human variability as a source of individualization
- To know the morphological variability of characters distinctive of human groups
- To understand and interpret biochemical and molecular variability

- To analyse the biological basis of human diversity by different identification techniques
- To understand the taphonomical effects to interpret forensic situations
- To know the statistical basis of identifications

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Analyse and interpret the origin, evolution, diversity and behaviour of living beings.
- Be able to analyse and synthesise
- Be able to organise and plan.
- Control processes and provide services related to biology.
- Design and carry out biodiagnoses and identify and use bioindicators.
- Isolate, identify and analyse material of biological origin.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Perform genetic analyses.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- 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 be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Understand heredity mechanisms and the fundamentals of genetic improvement.
- Understand the processes that determine the functioning of living beings in each of their levels of organisation.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Analyse present and past intra-population and inter-population variability in our species.
3. Analyse the sex- or gender-based inequalities and the gender biases present in one's own area of knowledge.
4. Analyse the sustainability indicators of the academic and professional activities within the area, integrating the social, economic and environmental dimensions.
5. Be able to analyse and synthesise.
6. Be able to organise and plan.
7. Critically analyse the principles, values and procedures that govern the exercise of the profession.
8. Describe heredity patterns and calculate the risk of recurrence of human diseases.
9. Identify the natural and artificial factors that affect human health.
10. Interact with and advise government institutions operating in the field of social policy and population and public health policy.
11. Interpret human variability as a source of individualisation.
12. Interpret phylogeographic analyses of the human species.
13. Interrelate the environmental, biological and cultural data that merge in the interpretation of human evolution.

14. Make population genetic determinations from which to interpret the relationships between normal and pathological variability in the human species, and interpret the findings.
15. Manipulate human samples and perform morphological, molecular and chromosome determinations for the diagnosis and prevention of diseases.
16. Propose new methods or well-founded alternative solutions.
17. Propose projects and actions that incorporate the gender perspective.
18. Propose ways to evaluate projects and actions for improving sustainability.
19. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
20. 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.
21. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
22. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
23. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

Content

- Legal framework of forensic anthropological studies
- Identification of living people and recent corpses
- Decay and conservation
- Taphonomy
- Field anthropology
- Identification from human remains
- Forensic anthropology in major catastrophes

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Laboratory practices	9	0.36	2, 14, 13, 5, 6
Lectures	15	0.6	2, 10, 12, 13, 5
Seminars	2	0.08	2, 10, 13, 5
Type: Supervised			
Preparation of seminars	8	0.32	2, 12, 13, 5
Tutorials	2	0.08	5, 6
Type: Autonomous			

Group seminars	12	0.48	2, 13, 5, 6
Personal study	25	1	2, 12, 13, 5

The nucleus of the learning process is the work of the student. The student learns working, being the mission of the teaching staff to help him/her in this task by providing information or showing them the sources where they can achieve the most recent and efficient information. In line with these ideas and in accordance with the objectives of the subject, the development of the course is based on the following activities:

Theoretical teaching: The student acquires the scientific and technical knowledge of the course, attending the theoretical classes and complementing them with the personal study of the topics explained. The theoretical classes are conceived as a method of transmitting the teacher's knowledge to the student. However, an important part of the discussion of topics will be proposed or subjects developed using a methodology of Problem-based learning. Whenever possible, students will work in small groups. With enough anticipation, the student will know the topics to debate and discuss on the virtual forums. The audiovisual material used in class will be provided by the teacher through a virtual campus.

Seminars: seminars will focus on specific topics of theory. The students will work in small groups allowing them to acquire the ability to work in group and also to analyse and do synthesis.

Practices: The topics related to osteology and diagnoses will be mainly taught in theoretical-practical classes with small groups of students in the laboratory. They are designed to learn osteology and its variability, and are complemented by theoretical information. Students will have a detailed work manual. In order to achieve good performance and acquire the corresponding competencies, a comprehensive reading of the proposed practice is essential before its completion. The follow-up of the practical class will also involve the individual collection of the results in a dossier of activities. To be able to attend the practical classes it is necessary for the student to justify having passed the biosafety and security tests that he will find in the Virtual Campus and be knowledgeable and accept the rules of operation of the laboratories of the Faculty of Biosciences.

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

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Group seminars	20%	0	0	4, 2, 3, 1, 8, 14, 9, 10, 11, 13, 18, 16, 17, 23, 22, 21, 19, 20, 5, 6
Laboratory work	30%	0	0	7, 4, 2, 3, 1, 8, 14, 9, 12, 11, 13, 15, 18, 16, 17, 23, 22, 21, 19, 20, 5, 6
Written test	50%	2	0.08	4, 2, 1, 8, 14, 9, 12, 11, 13, 16, 23, 22, 21, 19, 20, 5

As it is a continuous evaluation, the student's participation, the preparation of the seminars, the practical materials and the control grade will be taken into account. The final result will be the weighted sum of each of the parts.

- There will be a written test to evaluate the theoretical part of the subject (50%). It will be necessary to obtain a minimum grade of 4 in this test to be combined with the other evaluation activities. This test can be recovered during the recovery period.
- Practices represent 30% of the final grade. The evaluation will take into account both the attitude of the students and the work done in the laboratory itself and the required questionnaires. Internships are mandatory attendance and required to pass the subject. The students will obtain the qualification of "Not Evaluable" when the absence is greater than 20% of the scheduled sessions
- The seminar will be used to discuss group work and is equivalent to 20% of the final grade. All students in the same group will have the same grade in this test, but nuanced by the work developed individually within the work.

To pass the subject, the grade must be equal to or higher than 5.

Single evaluation

The single evaluation consists of a single synthesis test in which the contents of the entire theory program of the subject will be evaluated. The grade obtained in this synthesis test will account for 50% of the final grade for the subject. The single evaluation test will be done coinciding with the same date set in the calendar for the continuous evaluation test and the same recovery system will be applied as for the continuous evaluation.

The evaluation of the activities of practices and seminars will follow the same process of the continuous evaluation. The grade obtained will mean 50% of the final grade for the course. The students who take advantage of the single evaluation may deliver all the evidence together (practical report and seminar work) on the same day as the one set for the synthesis test. The seminar work can be done individually.

Bibliography

Basic literature:

WHITE T, BLACK MT & FOLKENS PA. Human Osteology.- Academic Press (diverses edicions)

LANGLEY, NR AND TERSIGNI-TARRANT MT. (2017) Forensic Anthropology: a comprehensive introducción (2n ed). CRC Press

OBERTOVA Z, STEWART A, CATTANEO C (2020).- Statistics and probability in Forensic Anthropology.- Elsevier

HAGLUND SD & SORG MH. (1997) Forensic Taphonomy: the postmortem fate of Human Remains. CRC Press

JOBLING, M.A. i HURLES, M.E. (2004). Human Evolutionary Genetics - origin, peoples & disease. Garland Science. Cap. 15

WEINER MP, GABRIEL SB & STEPHENS JC. (2007) - Genetic variation. A laboratory manual. Cold Spring Harbor. Cap.34

Specific literature

It will be given during the course.

Software

no aplica

Language list

Name	Group	Language	Semester	Turn
(PLAB) Practical laboratories	141	Catalan	second semester	afternoon
(PLAB) Practical laboratories	142	Catalan	second semester	afternoon
(PLAB) Practical laboratories	143	Catalan	second semester	afternoon
(PLAB) Practical laboratories	144	Catalan	second semester	afternoon
(SEM) Seminars	141	Catalan	second semester	morning-mixed
(SEM) Seminars	142	Catalan	second semester	morning-mixed
(TE) Theory	14	Catalan	second semester	morning-mixed