

Forensic Anthropology

Code: 101904
ECTS Credits: 3

Degree	Type	Year	Semester
2501230 Biomedical Sciences	OT	4	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Other comments on languages

The content of different subjects will be explained by the professor using visual material. the main references and ppts will be in English

Teachers

Nuria Armentano Oller

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 with the basic tools to manage biological information about people 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 analyze 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.
- Describe biomedical problems in terms of causes, mechanisms and treatments.
- Display knowledge of the basic life processes on several levels of organisation: molecular, cellular, tissues, organs, individual and populations.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- 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.
- Use bioinformatic tools, databases and methods for analysing experimental data.
- Work as part of a group with members of other professions, understanding their viewpoint and establishing a constructive collaboration.

Learning Outcomes

1. Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
2. Interpret human variability as a source of individualisation.
3. Interpret taphonomic effects in the interpretation of forensic situations.
4. Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
5. 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.
6. 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.
7. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
8. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
9. 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.
10. Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
11. Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
12. Use statistical bases in forensic identification.
13. Work as part of a group with members of other professions, understanding their viewpoint and establishing a constructive collaboration.

Content

Legal framework of forensic anthropological studies

- Identification of living people and recent corpses
- Biochemistry of death
- Forensic entomology and botany
- Conservation
- Field anthropology
- Identification from human remains
- Forensic anthropology in major catastrophes
- Biochemical and molecular applications in identification and determination of paternity

*Unless the requirements enforced by the health authorities demand a prioritization or reduction of these contents.

Methodology

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 informations. 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:

Theory classes: 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 theory classes are conceived as a method of transmitting the teacher's knowledge to the student. However, in this subject, 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 sufficient anticipation, the student will be given the topics to debate and discuss discussion on the virtual forums. The audiovisual material used in class will be provided by the teacher through a virtual tool.

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 of analysis and 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 osteopathy 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.

*The proposed teaching methodology may experience some modifications depending on the restrictions to face-to-face activities enforced by health authorities.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			

Laboratory practices	9	0.36	2, 3, 13, 12
Lectures	15	0.6	2, 3, 12
Seminars	2	0.08	2, 13
Type: Supervised			
Preparation of seminars	8	0.32	2, 13
Tutorials	2	0.08	
Type: Autonomous			
Group seminars	14	0.56	2, 3, 13, 12
Individual study	25	1	2, 3, 12

Assessment

Assessment is continuous and all assessment activities are OBLIGATORY

*Student's assessment may experience some modifications depending on the restrictions to face-to-face activities enforced by health authorities.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class attendance and participation in in-class and virtual debates	5%	0	0	1, 11, 10, 2, 3, 4, 9, 8, 7, 5, 6, 13
Exam	50%	0	0	2, 3, 9, 8, 7, 5, 6, 12
Laboratory work	25%	0	0	1, 11, 10, 2, 3, 4, 9, 8, 7, 5, 6, 13, 12
Written ppt and Oral presentation (15 minutes) of a subject related to the program of the course	20%	0	0	1, 10, 2, 3, 4, 13, 12

Bibliography

Basic literature:

WHITE T, BLACK MT & FOLKENS PA. Human Osteology.- Academic Press (diverses edicions)
 TERSIGNI-TARRANT MT. 2012. Forensic Anthropology: an Introducción. CRC Press
 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.