

## 26735 - Medical and Forensic Bio-anthropology

### Syllabus Information

**Academic Year:** 2019/20

**Subject:** 26735 - Medical and Forensic Bio-anthropology

**Faculty / School:** 104 - Facultad de Medicina

**Degree:** 304 - Degree in Medicine

**ECTS:** 4.0

**Year:** 5

**Semester:** First semester

**Subject Type:** Optional

**Module:** ---

### 1.General information

#### 1.1.Aims of the course

#### 1.2.Context and importance of this course in the degree

#### 1.3.Recommendations to take this course

### 2.Learning goals

#### 2.1.Competences

#### 2.2.Learning goals

#### 2.3.Importance of learning goals

### 3.Assessment (1st and 2nd call)

#### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

### 4.Methodology, learning tasks, syllabus and resources

#### 4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as:

- Lectures, ICTs - information and communication technologies (networks, software, computer, projector, etc.).
- Practice sessions in laboratory and dissection room, (real cases and virtual models).

#### 4.2.Learning tasks

The course includes the following learning tasks:

- Task 1: Lectures (fifteen hours taught by the Department of Human Anatomy and Histology and five hours by the Department of Pathology, Forensic and Forensic Medicine and Toxicology). CREDITS: twenty HOURS.
- Task 2: Laboratory practices. CREDITS: 10 HOURS Dept. Human Anatomy and Histology, two HORAS: FORENSIC GENETICS LABORATORY. Department of Pathological Anatomy, Forensic and Forensic Medicine and Toxicology.
- Task 3: Problem solving and cases. CREDITS: eight HOURS in Dept. Human Anatomy and Histology
- Task 4: Carrying out practical work. CREDITS: seventeen HOURS Dept. Human Anatomy and Histology.
- Task 5: Tutorials. CREDITS: Interview individualized and/or in very small groups for the academic and personal orientation of the student.

- Task 6: Exam. CREDITS: two HOURS.
- Task 7: Study. CREDITS: forty-one HOURS.

### 4.3.Syllabus

The course will address the following topics:

#### Introduction

- 1.Introduction to Human Anthropology. Basic concepts. Human Anthropology. From Physical Anthropology to Molecular Anthropology. Applications in the context of Forensic Sciences.

#### Forensic Genetics and Molecular Anthropology

- 2. FORENSIC SCIENCE AT THE SERVICE OF THE IDENTIFICATION OF THE LIVING AND THE CADÁVER. THE DNA PROOF IN FORENSIC MEDICINE.
- 3. MOLECULAR ANTHROPOLOGY AND ANTIGUA DNA
- 4. PERIODICAL REPORT

#### Physical Anthropology

- 5.Forensic anthropology. Introduction and basic concepts.
- 6.Evolutionary aspects of bioanthropology adaptation to bipedalism, the evolution of the brain, evolution of language and evolution of the hand.
- 7.Comparative anatomy. Differential diagnosis of animal bone remains and human bone remains.
- 8.Introduction to Osteology. Structure and function of the skeletal system. Classification and description of bones.
- 9.Cranial skeleton. Cranioscopy. Anatomy of the skull. Epigenetic characters. Craniometry. Points, measures and indexes.
- 10.The physical anthropology of the postcranial skeleton.
- 11.Anthropological study of the tooth. Forensic odontoestomatology.
- 12.Determination of sex. Morphognostic and morphometric methods.
- 13.Estimation of osteological age in adults and subadults.
- 14.Individual characteristics. Determination of laterality. Reconstruction of height and weight estimation.
- 15.Paleopathology. Disease in the bone. Elements for identification.
- 16.Collection, transfer and preservation of skeletal remains. Collection of evidence at the place of discovery
- 17.Human burials Determination of the number of individuals in multiple burials. The skeletal cadaveric process. An anthropological study on corpses in poor condition. Establishment of the date of death.
- 18.Mass Disasters Forensic anthropology in events with multiple victims. Intervention in events against Human Rights.
- 19.Techniques of dating in skeletal remains and chemical reconstruction of the diet
- 20.Anthropology of the living subject. Somatometry and body composition.
- 21.Determination of age in the living subject.
- 22. The report in Physical Anthropology.

### 4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the Facultad de Medicina web

<https://estudios.unizar.es/estudio/ver?id=118>

As of September 27 at 5:00 p.m.

Development of practices for groups: the dates will be communicated according to the distribution of groups depending on the students enrolled.

These conditions will be at 4:00 p.m. Thursdays according to a Physical Anthropology calendar.

At 5:00 pm. for Forensic Genetics.

### 4.5.Bibliography and recommended resources

<http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>