Universidad Zaragoza

Academic Year/course: 2024/25

68404 - Legal medicine and toxicology research

Syllabus Information

Academic year: 2024/25
Subject: 68404 - Legal medicine and toxicology research
Faculty / School: 104 - Facultad de Medicina
Degree: 530 - Master's in Introduction to Medical Research
ECTS: 5.0
Year: 1
Semester: Second semester
Subject type: Optional
Module:

1. General information

There is no medical specialty or area in the practice of medicine that does not raise ethical and legal questions. Scientific research in legal and forensic medicine is directly applied to the solving of fundamental questions for the performance of assistance functions.

Toxicology and occupational medicine, as well as forensic medicine, are experiencing a great scientific development. To a great extent, research in these disciplines reaches many medical specialties. That is why they are of great interest regardless of the physician's professional practice.

This module contributes to the development of the following MDGs:**3**: Health-Welfare;**4**: Quality Education Objective; 16**:** Peace, Justice and Strong Institutions; as well as objectives **6-7-8**.

2. Learning results

Upon completion of this subject, the student will be able to:

1.- Identify the main lines of scientific research in forensic medicine and occupational medicine and interpret their importance from different perspectives (scientific-technical, legal, expert and social).

2.- Analyse the ethical and legal issues that arise in scientific research in this field.

3.-Identify the challenges and keys in the ethical and legal analysis of a medicine that is constantly evolving within a changing scientific and technological scenario that develops very quickly and continuously poses new medical-legal dilemmas.

4.-Know the main lines of research currently open on the toxicity of chemical substances in human patients. These lines are aimed at deepening the toxicokinetic and toxicodynamic phenomena, as well as the current epidemiology, symptoms and treatment of acute and chronic human intoxications as well as other long-term harmful effects.

3. Syllabus

1. INTRODUCTION TO SCIENTIFIC RESEARCH IN FORENSIC AND LEGAL MEDICINE,

TOXICOLOGY AND OCCUPATIONAL MEDICINE

2. RESEARCH IN FORENSIC GENETICS AND IDENTIFICATION. POPULATION GENETICS. ANCIENT DNA.

3. SCIENTIFIC RESEARCH IN OCCUPATIONAL MEDICINE

4. SCIENTIFIC RESEARCH IN TOXICOLOGY

4. Academic activities

PHASE 1: Interactive master classes on research issues of special relevance. Interactive conferences with researchers.

PHASE 2: Interactive seminars. For each chapter of the contents of the syllabus, the teacher will offer an update on the main issues, followed by an analysis of one or more scientific articles, discussion and the drawing of conclusions.

PHASE 3: Work may be conducted from different perspectives (scientific, ethical, legal and judicial), in occupational medicine, forensic medicine and toxicology. Their conclusions will be presented, and a debate will be opened among peers in a face-to-face session.

5. Assessment system

ASSESSMENT ACTIVITIES

Participation: attendance to the sessions and the degree of integration in the activities, discussions and debates in class will be assessed.

Directed work: critical analysis of scientific articles in relation to reviewed research lines and contents.

The voluntary development of complementary training activities, which are offered to the student, will also be taken into account for the purpose of assessing their academic performance.

The grade will be obtained from the result of combining the following parameters: -Active classroom participation (60%) - Directed work (30%) -Complementary activities (10%)

6. Sustainable Development Goals

3 - Good Health & Well-Being
4 - Quality Education
16 - Peace, Justice and Strong Institutions