

FORENSIC SCIENCE IN VETERINARY MEDICINE

Study Programme: MIMV **Curricular Year:** 5th **Semester:** 10th **Optional** **Credits:** 2.5 ECTS

Lecturer(s): Manuela Rodeia (SPC), Anabela Moreira (R), Isabel Pereira Fonseca, José Ferreira da Silva, Graça Alexandre-Pires Melo, Belmira Carrapiço

1. Contact hours:

Lectures – 24 hours, **Practicals** – 4 hours, **Total** – 28 hours

2. Objectives:

Combine under a single course, several aspects of knowledge and attributions of veterinary medical profession and make their integration in the forensic point of view (post-mortem examination and pathology, entomology, toxicology, clinics, odontology)

Explore some basic concepts of non-biological forensic science, particularly in the area of criminalistics and ballistic.

Analyze legal aspects: national and international legislation, jurisprudence

3. Programme:

Theoretical Course:

Introduction: The Forensic Science and Veterinary Medicine: areas of activity.

Criminal and Civil Actions: Legal aspects. The portuguese jurisprudence. Relevant national law. Mode of action/intervention of the veterinarian in the context of illicit.

Veterinary Forensic Clinics: Methodology of evidence collection and documentation. Cruelty and animal abuse, clinical conditions. Preparation of the expert report.

Veterinary Forensic Pathology: Methods and procedures.

Forensic Entomology: Applications of forensic entomology. Insects identification. Sample collection and handling. Entomology and *postmortem* interval.

Forensic Toxicology: Applications and components. Evidence and toxicological examination, methodology and limitations..

Forensic Odontology: Bites and bitemarks as forensic evidence. Methodology of documentation and assessment. Result interpretation and expert report.

Criminalistics: Basic concepts. Description and summary characterization of methods and procedures and their application or adaptation to the veterinary field.

Ballistics: Basic concepts. Terminal ballistic.

Forensic Genetics: Basic concepts and application of animals genetic profile databases. Forensic Genetics and wildlife crimes.

Practical Course:

Practical aspects of forensic necropsy, entomology and odontology. Collection, packaging and handling of samples/evidences. Analysis of a crime scene.

4. Bibliography:

- Merck, M. D. (Ed). (2012). *Veterinary Forensics, animal cruelty investigations* (2ªEdição). Blackwell Publishing.

- Byrd, J.H., Lockwood, R., Touroo, R. & Reisman, R. (eds) (2017) *Veterinary Forensic Sciences: A Casebook for Animal Evidence*. CRC Press.

- Munro, R. & Munro, H.M.C. (2008). *Animal Abuse and Unlawful Killing, Forensic Veterinary Pathology*. Saunders.

- Rogers, E. & Stern, A.W. (eds). (2017). *Veterinary Forensics: Investigation, Evidence Collection and Expert Testimony*. CRC Press.

5. Assessment:

Attendance, scale 0-100 – 10% of total mark

Written examination, scale 0-20 (minimum of 9.5 for approval) – 90% of total mark