

## PHARMACOLOGY AND THERAPEUTICS I

**Study Programme: MIMV Curricular Year: 3<sup>rd</sup> Semester: 5<sup>th</sup> Compulsory Credits: 4.5 ECTS**

**Lecturer(s):** M. Manuela G. R. E. Niza (CCP), Berta M.F.F. São Braz (R), Anabela S. S. S. Moreira, Ana M. G. X. F. Lourenço, Frederico N. C. A. Silva, Luís M. M. Carvalho

### 1. Contact hours:

**Lectures – 26; Praticals – 26; Lecture/Practicals – 13; Total - 65**

### 2. Objectives:

The general objective is the learning of the pharmacological basis of therapeutics, so students can deal with the specific therapeutics' aspects in later areas such Medicine and Surgery. The main objective is to help students to acquire basic and specific knowledge of drugs used in animals, to prevent, cure or undermine pathological conditions. The students should acquire knowledge in general pharmacology (pharmacokinetic and pharmacodynamic) and in pharmacology of etiotropic drugs, for a forward application in a therapeutic context.

The student must fit a formative profile, with scientific and technical bases that allow him to choose, explain, discuss, evaluate, and use the best strategies on pharmacotherapy with application and execution of different techniques of drug administration.

### 3. Programme:

General Pharmacology: Objectives of Pharmacology and Therapeutics. Pharmacological areas and Therapeutic types. Pharmacokinetic and Pharmacodynamic concepts. Administration routes and fate of drugs in the body. General mechanisms of action. Changes in drug action. Interspecies posologic extrapolation. Drug associations and posology. Drug administration techniques. The problematic and drug legislative framing in national space and in the EU. The animal welfare and ethic in therapeutic.

Special Pharmacology: Etiotropic drugs - antiseptics and disinfectants; specific chemotherapeutic drugs -furan derivatives; sulfonamides; quinolones; antibiotics (different groups); antifungal agents; antiviral agents; antiparasitic agents (antihelmintics, ectoparasiticides, endectocides, and antiprotozoal drugs). Rules for a rational use and prescription of antimicrobials and antiparasitic drugs.

### 4. Bibliography:

Riviere, J.E. & Papich, M.G. (Eds). (2018). Veterinary Pharmacology and Therapeutics. 10<sup>a</sup> Ed., Wiley Blackwell.

Guimarães, S., Moura, D. & Soares da Silva, P. (2014). Terapêutica Medicamentosa e Suas Bases Farmacológicas. 6<sup>a</sup> Ed., Porto Editora.

Boothe, D.M. (2011). Small Animal Clinical Pharmacology and Therapeutics, 2<sup>a</sup> Ed., W. B. Saunders Company.

Prescott, J.F., Baggot, D. & Walker, D. (2013). Antimicrobial Therapy in Veterinary Medicine. Iowa State Press.

Baggot, D. (2001). The Physiological Basis of Veterinary Clinical Pharmacology. 1<sup>a</sup> Ed., Wiley-Blackwell.

Spinosa H.S., Górnica, S.L. & Bernardi, M. (2017). Farmacologia Aplicada à Medicina Veterinária, 6<sup>a</sup> Ed. Guanabara/Koogan.

### 5. Assessment:

The students' knowledge is evaluated at the end of the term with a written examination including theoretical subjects and also a practical examination. Final marks are the mean of the two exams (scale 0 to 20), with a minimum of 10 for approval.