

## PATHOLOGY AND CLINICS OF PARASITIC DISEASES

**Study Programme: MIMV    Curricular Year: 4th    Semester: 7th    Compulsory    Credits: 4.5 ECTS**

**Lecturer(s):** Isabel Fonseca (CCP), José Meireles (R) and Luís Carvalho

### 1. Contact hours:

**Lectures - 26    Practicals - 26    Total 52**

**2. Objectives:** Know the etiopathology, epidemiology, clinical signs and control (therapeutics and prophylactics) of the main parasites in companion animals (dogs and cats), exotic animals, horses, small and large ruminants, pigs, birds, rabbits and bees and their implications for Animal Health, Public Health and Animal Production. Know how to make a differential diagnosis with other diseases, obtaining a global and integrated view of the clinical act.

### 3. Programme

**Teórico:** Parasitic Diseases of some animal species and their importance in Public and Animal Health. Etiopathogenesis; clinical signs and lesions, diagnosis, prophylaxis and treatment. Parasitic diseases of dogs, cats, horses, cattle, sheep, goats, pigs, poultry, rabbits, exotic animals and bees.

**Prático:** Diagnostic techniques of various parasites: Exams: dermatological (scabies, lice, fleas, ixodid, etc.), hematological (microfilariae, hemoprotozoans, etc.), serological (*Leishmania*, *Neospora*, *Toxoplasma*, *Anaplasma*, *Rickettsia*, *Babesia*, *Ehrlichia*, etc.) secretions (*Trichomonas*), tissues (*Toxoplasma*, *Leishmania*, *Trichinella* etc.) and stool tests (qualitative and quantitative). Reference and use of some indirect methods of diagnosis, direct agglutination, direct and indirect immunofluorescence, ELISA, indirect hemagglutination and others. Necropsy, harvesting, preserving and identification of parasitic specimens.

### 4. Bibliography

Bowman, D.D. (2021) - *Georgi's Parasitology for Veterinarians*. 11th Ed. Saunders, Philadelphia, 528 pp.

Cordero del Campillo, M. & Rojo Vázquez, F.A. (1999). *Parasitologia Veterinaria*. McGraw- Hill, Interamericana, Madrid, 968 pp.

Madeira de Carvalho, L.M., Pereira da Fonseca, I.M. & Meireles, J.A. (2020) *Patologia e Clínica das Doenças Parasitárias - Linhas de orientação de estudo para as aulas práticas*. 90 pp.

Zajac, A.M., Conboy, G., Little, S.E., Reichard, M.V. (2021) *Veterinary Clinical Parasitology*. 9th Edition, Wiley-Blackwell, 432 pp.

Didactic materials produced by the teaching staff in the form of PDF files with Powerpoint presentations of theoretical and practical classes are available on the Curricular Unit's Moodle site.

**5. Assessment** The final exam consists of two parts, one theoretical and one practical. The theoretical exam is written with an objective purpose, in the form of selection of multiple-choice questions, true and false, and development issues.

The practical exam includes several points of examination that include the identification of three preparations related to adult and larval forms of helminths, protozoa, mites or insects, making a parasitological diagnostic technique of the associated parasitic diseases. This includes search for *Trichinella*, *Leishmania*, scraping skin, puncture nodes or bone marrow, stool tests, heartworm research and parasitic necropsy. The two exams each have a maximum duration of 2 (two) hours. The final grade results from the continuous assessment of students (attendance, interest and participation in class) and the average marks in the theoretical and practical tests. The minimum passing grade is 10 (ten), for both the theoretical test and the practical one.