

## TROPICAL INFECTIOUS AND PARASITIC DISEASES

**Study Programme:** MIMV **Curricular Year:** 4<sup>th</sup> **Semester:** 8<sup>th</sup> **Optional** **Credits:** 2.5 ECTS

**Lecturer(s):** Fernando Boínas (CCP & R), Isabel Fonseca

**1. Contact hours:** Lectures- 21; Theoretical-Practical – 3; Practicals – 2; Seminars - 2

**2. Objectives:** Knowledge on infectious and parasitic diseases affecting livestock species considered of major economic and social impact on tropical regions in developing countries, namely on: their aetiology and the pathogenesis of major infectious and parasitic diseases and the host defence mechanisms; most frequent epidemiological cycles; symptoms and lesions; diagnosis tools including epidemiological data analysis and laboratory results interpretation. To design and to set up disease prevention control and eradication programmes adjusted to epidemiological, environmental and production constraints.

### 3. Programme:

**Theoretical:** The importance of infectious and parasitic diseases on tropical countries. The role of International agencies (FAO and OIE) in disease control on developing countries. Aspects affecting infectious and parasitic diseases occurrence on tropical countries: Vectors: Ticks, Tse-tse flies, *Tabanidae*, Culicoides and Mosquitoes. Vaccination strategies. Infectious diseases and animal husbandry.

**Tropical Infectious diseases:** African swine fever, Classical swine fever, Peste des petits ruminants, Rift Valley Fever, West Nile Fever, Lumpy Skin Disease, African horse sickness, Bovine Contagious Pleuropneumonia, Foot and Mouth Disease, Anthrax, Emerging Diseases.

**Tropical Parasitic diseases:** Trypanosomosis and trypanotolerance. Parasitic diseases transmitted by *Ixodidae*: Babesiosis, Theileriosis, Rickettsiosis and leishmaniosis. Tropical helminthosis: Nematodosis, Cestodosis and Trematodosis of major economic and sanitary importance. Vaccines. Animal Production in the tropics. International programs on the support of Veterinary Health Services.

#### Practical:

- Observation and identification of arthropod vectors in parasitic diseases
- Assessment of competence and vector capacity of argasids and culicoides
- Molecular diagnosis of diseases transmitted by ticks
- Molecular diagnosis of exotic infectious diseases

### 4. Bibliography:

Coetzer, J.A.W. & Tustin, R.C. (Ed.) (2005). *Infectious Diseases of Livestock*. 2<sup>a</sup> Edição. Oxford.  
 Elsheikha H. and Xing-Quan Zhu (2020) 555 Questions in Veterinary and Tropical Parasitology. CAB International North America  
 Walker, A.R., Bouattour, A., Camicas, J.L., Estrada-Peña, A., Horak, I. G., Latif, A.A., Pegram, R.G. & Preston, P.M. (2003). *Ticks of Domestic Animals in Africa: A guide to Identification of Species*. ICTTD.

Food and Agriculture Organization (FAO): <https://www.fao.org>

FAO Emergency Prevention System for Animal Health:

<https://www.fao.org/ag/againfo/programmes/en/empres/home.asp>

World organization for Animal Health (OIE): [http://www.oie.int/eng/en\\_index.htm](http://www.oie.int/eng/en_index.htm)

VSF International Vétérinaires sans Frontières : <http://vsf-international.org/>

**5. Assessment:** The students' knowledge is evaluated at the end of the term through a written examination including theoretical and practical subjects.