

### UNIVERSIDADE DE LISBOA

## Faculdade de Medicina Veterinária

# **Zootechny, Agriculture and Environment**

Curricular Year: 1<sup>st</sup> Duration: 2<sup>nd</sup> Semester Credits: 6 ECTS

Teachers: Rui Bessa (CCP); Maria João Fradinho (R); Catarina Ginja; Fernando Afonso; Ilda Rosa;

Pedro Bule; Rui Caldeira.

Contact Hours: 125H Total.

42H Lectures; 6H Theoretical-practical; 10H Practical and laboratory teaching; 10H Fieldwork;

6H Seminar.

#### **Learning objectives:**

Students must acquire the knowledge and skills that allow them:

- To have an integrated view of agricultural production and the social role of domestic animals, with emphasis on their participation in food systems and their environmental impact.
- To have a first approach to the use and suitability of the main domestic animal species, as well as their breeds, welfare, housing facilities and regulation of livestock activity.
- To have a first approach to aquaculture and other secondary animal productions.
- To know the key concepts of plant biology in order to integrate the production and conservation of animal feed in the agricultural context, from a perspective that guarantees the sustainability of production systems and the protection of the environment and ecosystems.

#### **Program contents:**

- 1- Integrate livestock production into agrarian systems and global food chains that support humanity and its companion animals.
- 2- Main domestic species. Domestication, main breeds, ranks and associated products, skills, morphological evaluation, production cycles and production indicators.
- 3- Housing for animals, licensing of livestock farms and animal identification.
- 4 Environmental impact of livestock production.
- 5 Understanding plant biology: main metabolic pathways that allow plants to fix atmospheric carbon
- 6 Influence of climate and soil factors on plant production.
- 7 Technical bases for the implementation and management of pastures and forage crops.
- 8 Identification of the main species of legumes, grasses and toxic plants.
- 9 Forage conservation methods.

#### **Bibliography:**

Presentations in PowerPoint that support theoretical classes, scientific and technical articles, legislation and other documents, available on the Moodle e-learning platform.

Damron W.S. (2018). Introduction to animal science. Prentice Hall

Fogle B. (2013). The dog encyclopedia. Dorling Kindersley Limited, London.

Helgren J. A. (2014). The cat encyclopedia. Dorling Kindersley Limited, London.

Moreira N. (2002). Agronomia das forragens e pastagens. UTAD, Vila Real

Portas M.C.P. (2010). Identificação de equinos. Fundação Alter Real.



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Robinson T.P. et al. (2011). Global livestock production systems. Rome, FAO & ILRI Rost, T.L. et al. (2005). Plant biology. (2nd ed.). Wadsworth Publish. Co.

Sanudo C. (2009). Valoracion morfologica de los animales domésticos. Sociedad Espanola de Zooetnolo-gos, MARM, Madrid

Vasconcelos T. et al. (2014). Infestantes de pastagens. Plantas tóxicas e agressivas. ISA Press. Additional - Other scientific and technical articles, legislation and official documentation.

#### Assessment:

The assessment of the knowledge and skills acquired by the student is carried out through:

- a) A written exam in which the subjects taught in theoretical and practical classes are assessed, consisting of quick answer questions (multiple choice, true and false and fill in the gaps in sentences;
- b) A written group work (4-5 students) on zootechnics, agriculture and environment topic. The final classification corresponds to the weighted average between the classification obtained in the final exam (80%) and the classification of the group work (20%), on a scale of 0-20 values, with the classification in the final exam being equal to or greater than 10 values.

The student evaluation is also important to assess the efficiency of the teaching-learning methodologies, in compliance with the UC objectives, and to allow future adequate adjustments on the teaching methodologies and/or on the assessment of student's knowledge and skills