



ANIMAL PRODUCTION I

Study programme: MIMV Curricular Year: 4th Semester: 7th Compulsory ECTS: 4,0

Lecturers: Rui Caldeira (CCP, R), Rui Bessa, José Pedro Cardoso Lemos.

1. Contact hours: Lectures – 26, Lecture/Practical – 18, Field work - 10

2. Objectives:

To provide the knowledge to understand the structure, organisation and strategies of Animal Production and manage the biological bases of production. As the first practical application, the discipline aims that, in ruminant's and equine sectors, students be able to differentiate the productive aptitudes of the populations bred in Portugal, to be acquainted with the techniques of animal husbandry and production and to design, manage and evaluate production systems.

3. Programme:

Overview of Animal Production in the World, European Union and Portugal. Components of the animal production chains. Phases of more complex management in female husbandry. Body condition. Biological bases of production: lactation and growth. Milk, carcasses and meat quality. Milking of cows, ewes and goats. Principles of animal housing. Animal production systems. Productive indicators. Biological and economic efficiency and sustainability.

Cattle (dairy and beef) production. World, European and Portuguese herds. Overview of European and Portuguese production, consumption and markets. Production traits of the local and foreign breeds reared in Portugal. Husbandry and production techniques. Housing. Systems of milk and meat production.

Horse production. World, European and Portuguese herds. Overview of European and Portuguese production and markets. Autochthonous and foreign breeds reared in Portugal. Husbandry and production techniques.

4. Bibliography:

Class handouts, lecture notes, scientific and technical papers.

Akers, R. Michael, 2002. *Lactation and the Mammary Gland*. Blackwell Publishing

Buxadé, C., 1996/7. *Zootecnia, Bases da Produccion Animal*. Tomos VII e XI. Ediciones Mundi-Prensa, Madrid, Espanha

Grandin, T. (2014). *Livestock Handling and Transport*. CAB INTERNATIONAL, New York.

Lewis, L.D., 1996. *Feeding and care of the horse*, 2nd ed., Lippincott Williams & Wilkins, USA

Martin-Rosset, W., 2012. *Nutrition et alimentation des chevaux*. Éditions Quae. Paris, França.

Neimann-Sorensen, A. (Ed.) (1992). *Beef Cattle Production*. Elsevier, Amsterdam. 487 pp.

Taylor, R. E. e Field, T. G., 2004. *Scientific farm animal production - An introduction to Animal Science* (8th ed.). Pearson Prentice Hall, New Jersey, USA.

Webster, J. (ed.) (2011). *Management and welfare of farm animals*. UFAW Animal Welfare Series. Wiley-Blackwell.

5. Assessment:

Theoretical and practical subjects are evaluated with a written examination including short answer questions, multiple-choice questions, true and false and incomplete sentences.