ANIMAL PRODUCTION I

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

Lecturers: Rui Caldeira (CCP), Rui Bessa (R), José Pedro Cardoso Lemos, Maria João Fradinho, Susana Alves.

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
Blowey, R. e Edmondson, P., 2010. Mastitis Control. 2nd edition, CABI, Wallinford, UK.
Lawrence, T.L.J., Fowler, V. R. 2012. Growth of Farm Animals, 2nd ed., CABI, Wallinford, UK.
Phillips, C.J.C., Christie, J. 2018. Principles of Cattle Production, 3rd ed., CABI, Wallinford, UK
Risco, C. A., Melendez, P., P.M. 2011. Dairy Production Medicine, Wiley-Blackwell
Taylor, R. E. e Field, T. G., 2019. Scientific farm animal production - An introduction to Animal Science (12th ed.). Pearson Prentice Hall, New Jersey, USA.
Martin-Rosset, W., 2018. Equine Nutrition - INRA nutrient requirements, recommended allowances and feed tables. Wageningen Academic Publishers
Webster, J., 2020. Understanding the dairy cow, 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.