

ANIMAL FEEDING

Study programme: MIMV Curricular Year: 3º Semester: 6º Compulsory ECTS: 4,0

Lecturer's: José P C Lemos (CCP, R), Rui M H Caldeira, Maria João Fradinho

1. Contact hours: Lectures – 26, Lecture/Practical – 26

2. Objectives:

3. To provide students with a theoretical and practical training allowing them to determine the nutritional requirements of animal species according to type and level of production, choose adequate feeds as well as the ways of processing them. This knowledge will allow the veterinary to optimise animal production as well as to prevent the development of metabolic pathologies, ensuring animal health and well-being and the quality of the final products of animal origin.

4. Programme:

Nutritional requirements of animals. Current methods for analysis of feeds and nutrients. Classification and evaluation of the nutritional value of staple feeds. Technology of production of compound feed. Food processing. Additives: classification and use. Feeding strategies of the various species of domestic animals: cattle, sheep and goats, pigs, poultry, horses, rabbits, fish, cats and dogs. Production cycle and evolution of nutritional needs. Feeding breeding, replacement and meat and dairy animals. Characterization of production systems: intensive, semi-intensive and extensive. Feed intake vs. coverage of nutritional needs; forms of feed presentation and distribution; Major nutritional deficiency diseases; Feeding particularities at the various stages of production. Liquid and solid feed - weaning. Formulation of balanced diets at the minimum cost. Use of linear programming.

5. Bibliography:

Copies of files / slides presented in class, scientific and technical articles.

- Macdonald, P, Edwards, R.A., Greenhalgh, J.D.F., Morgan, C.A., Sinclair, L.A. & Wilkinson, R.G. *Animal Nutrition*. Prentice Hall. 7th Edition, 2011.

- Forbes, J.M. *Voluntary Food Intake and Diet Selection in Farm Animals*. CAB International, Wallingford, UK. 2nd Edition, 2007

- Taylor, R. E. & Field, T. G. *Scientific farm animal production - An introduction to Animal Science*. Pearson Prentice Hall, New Jersey, USA. 12th Edition, 2020

- National Research Council, *Nutrient Requirements of Domestic Animals* (collection). National Academy Press. Washington DC

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.