Universidad Zaragoza

Academic Year/course: 2023/24

28419 - Animal Nutrition

Syllabus Information

Academic year: 2023/24
Subject: 28419 - Animal Nutrition
Faculty / School: 105 - Facultad de Veterinaria
Degree: 451 - Degree in Veterinary Science
ECTS: 6.0
Year: 2
Semester: Second semester
Subject type: Compulsory
Module:

1. General information

The objective is for students to acquire basic knowledge of the nutrients provided by food and the factors that determine their digestive and metabolic utilization, in order to assess their efficiency. In addition, it defines and assesses the needs of domestic animals in different physiological phases, and the analysis of feeding systems to satisfy such needs. This knowledge should be used to understand and establish feeding patterns that define animal husbandry and production systems.

These approaches and objectives are aligned with the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda (https://www.un.org/sustainabledevelopment/es/), given that animal nutrition optimizes the use of natural resources and the maintenance of the environment, sustainable production of healthy food and animal welfare (Goals 3, 11, 12, 13 and 15).

2. Learning results

- Possess a basic knowledge of the nutrients provided by foods, and be able to characterize the main raw materials.
- Understand the metabolic processes involved in the digestive utilization of food, and be able to assess their efficiency.
- Possess knowledge about the determination of the needs of animals in their different physiological phases.
- Understand feed assessment methods and systems and possess basic concepts of their application to the satisfaction of the nutritional needs of animals
- Understand the influence of feed on the quality of animal products
- Be able to work in a team, synthesize the available information on a topic, present and substantiate their opinion on it and present it publicly, orally and in writing

3. Syllabus

BLOCK 1. Concept of nutrition. Chemical composition of food

BLOCK 2. Raw materials

BLOCK 3. Digestive ecosystem

BLOCK 4. Digestibility

BLOCK 5. Energy categories for monogastrics and ruminants. Systems

BLOCK 6. Protein assessment in monogastrics and ruminants. Systems

BLOCK 7. Voluntary ingestion

BLOCK 8. Care requirements

BLOCK 9. Growth needs

BLOCK 10. Needs for reproduction. Egg production

BLOCK 11. Gestational needs

BLOCK 12. Lactation needs

4. Academic activities

Master classes: 42 hours

Theoretical sessions in which the contents of the subject will be explained

Problems and cases: 10 hours

Practical problem solving

Laboratory practices: 8 hours

Identification of raw materials and feed microscopy. Feed formulation

Teaching assignments: 24 hours

Preparation of evaluable teaching assignments: bromatological report and label analysis

Personal study: 60 hours

Assessment tests. 6 hours

5. Assessment system

The subject will be evaluated in the global evaluation modality by means of the following activities:

- Individual written tests: Two midterm exams. The tests will consist of true/false, 3-alternative and short questions, and two case studies to be solved. Passing the first midterm exam, which is voluntary, with a minimum grade of 5 out of 10 will entitle the student to take only the second part of the subject in the official call for exams. The final grade of the written tests will be from 0 to 10, and will represent 80% of the final grade of the subject.

The assessment criteria are: mastery of content, use of terminology, accuracy of concepts, reasoning of arguments.

- Individual assignments 1 and 2: delivery of the teaching assignments (5% of the grade each). It will only be considered for the grade of the subject if a minimum grade of 4.5 out of 10 is obtained in the final written test.

The assessment criteria will be based on parameter calculations, general interpretation and critical judgment.

- Team work (3-4 people) in practical classes: the understanding of the concepts acquired in the practical classes and their application to a specific case will be assessed, as well as attendance. The grade will be from 0 to 10, and will represent 10% of the final grade of the subject. Students who have not completed the practices may request an individual evaluation prior to the written exam.

Students who do not attend the theoretical classes will be able to take the final exam of the subject in its different calls. Students have twelve opportunities to perform the practical activities for evaluation throughout the academic year.