

## 28924 - Animal science II

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 28924 - Animal science II

**Faculty / School:** 201 - Escuela Politécnica Superior

**Degree:** 583 - Degree in Rural and Agri-Food Engineering

**ECTS:** 6.0

**Year:**

**Semester:** First semester

**Subject type:** Optional

**Module:**

### 1. General information

To provide students with the specific skills to know, understand and use the principles of animal production technologies. The general contents of the subject are in line with the following development sustainable objectives:

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture Goal 12. Ensure sustainable consumption and production patterns.

### 2. Learning results

To be able to explain and use basic concepts, principles and methods of Animal Production.

To be able to identify biological forms and designs, and apply basic principles in the morphological characterization of an organism and functional morphology to identify adaptations in living beings.

To be able to explain the relationship of living beings with the environment, and the process of adaptation.

To be able to explain, compare and use the physiological basis of reproduction in food animals.

To be familiar with the processes of ingestion, digestion, absorption and metabolism by which the animal organism uses food.

To be able to explain basic feeding methods.

To be aware of the main ways of animal genetic improvement

### 3. Syllabus

Introduction to animal anatomy and physiology.

Endocrinology

Growth and development.

Ethology and animal welfare

General and comparative functional anatomy of the male genital tract. Physiological aspects of reproduction in the male General and comparative functional anatomy of the female genital tract. The estrous cycle of the female

Gamete transport and fertilization. Gestation. Childbirth and postpartum

Lactation

Reproduction of birds

The nutritional principles of food

Anatomy and physiology of digestion. Absorption and metabolism

Digestive use

Energy from food and its utilization by the animal organism

Protein nutrition

Food intake

Minerals and vitamins. Water

### 4. Academic activities

Theoretical sessions (30 face-to-face hours of participative lectures). They will consist of expository lessons and participatory. In addition, at the end of some of the didactic units, students will be offered different guided activities that will be presented during the theoretical sessions.

Laboratory practices (20 classroom hours). Chemical analysis (Weende and Van Soest) of raw materials frequently used in animal feed will be performed

Seminars (7 face-to-face). The activities will be of an expository and participative nature

Visits (3 face-to-face hours). Visits to different places where the student will be able to observe and analyze some of the objects and processes studied in the theoretical classes

## **5. Assessment system**

Final written test

It will be graded out of 10 points and its impact on the final grade will be 80%. It will be necessary to obtain a minimum score of 5 points out of 10 total points in the exam. If the grade obtained in this test is lower than 5 points, the subject will not be considered as passed, regardless of the grades obtained in the rest of the activities that are evaluated .

The work will be presented and defended by each group of students in seminar-type sessions, in which the authors will have to intervene to explain and argue some of the points contained in the report, and debate and discuss them with the rest of the seminar participants (teachers and students). . The time available for the presentation and defense of the topic during the seminar sessions will be 10 to 15 minutes

The success rates for the subject in the last three years are: 2019/20: 75%; 2020/21: 77,78%; 2021/22: 81,82%