

28412 - Animal Experiments I

Información del Plan Docente

Academic Year	2016/17
Academic center	105 - Facultad de Veterinaria
Degree	451 - Degree in Veterinary Science
ECTS	3.0
Course	
Period	First semester
Subject Type	Optional
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

The learning process designed for this subject is based on the following:

-Theoretical classes: Participatory lectures will be taught in the classroom to a group of students.

-Practical classes: Initially, the teacher will make a short explanation of the session and after that, the students will

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perform the practice under the permanent supervision of the teachers.

5.2.Learning activities

- **Theoretical classes:** Theoretical classes (24 hours) will be taught in the schedule established by the Faculty.

- **Practical classes:** Practical classes (6 hours) will be taught in the Laboratory of Physiology or in the Computer room, distributed in 3 sessions of 2 hours. The dates of the practices will be announced in advance, so that the students choose for the date that best suits them.

5.3.Program

The program offered to help the student achieve the expected results includes the following activities:

PROGRAM OF THEORETICAL CLASSES

Classes are divided into 5 thematic blocks, with the timing and assignment of hours described below.

I. ETHICS AND LEGISLATION (2 h)

- **Theme 1.** Ethical principles of animal experimentation. The principle of the Three R's. Ethics committees of animal experimentation. Objective and functions.

- **Theme 2.** Legislation on animal experimentation. European, national and regional legislation.

II. ALTERNATIVES TO USE OF ANIMALS (2 h)

- **Theme 3.** Overview of alternative methods in animal studies. Experimentation "in vitro".

III. BIOLOGY, HUSBANDRY AND MAINTENANCE OF LABORATORY ANIMALS (15 h)

- **Theme 4.** Comparative anatomy and physiology of the laboratory animals.

- **Theme 5.** Breeding and reproduction of laboratory animals.

- **Theme 6.** Behaviour and welfare of laboratory animals. Stress and recognition of signs of stress and suffering. Environmental enrichment.

- **Theme 7.** Facilities and environment. Types of facilities for laboratory animals.

- **Theme 8.** Factors affecting animal experiments: genetic standardization.

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- **Theme 9.** Factors affecting animal experiments: microbiological standardization. Types of barrier and protected areas.
- **Theme 10.** Nutrition and feeding regimes. Types of diets.

IV. LABORATORY ANIMAL HEALTH (2 h)

- **Theme 11.** Health status and diseases prevention.
- **Theme 12.** Practical aspects of monitoring health and disease.

V. OCCUPATIONAL HEALTH AND BIOSAFETY AT WORK WITH EXPERIMENTAL ANIMALS (3 h)

- **Theme 13.** Health and safety of staff.
- **Theme 14.** Cleaning and disinfection of facilities.
- **Theme 15.** Proper waste and animal carcasses disposal procedures.

PROGRAM OF PRACTICAL CLASSES

The program consists of 6 hours of practical activities, divided into 3 sessions of 2 hours. Practices involving the use of animals have been subjected to prior evaluation by the Advisory Ethics Committee for Animal Experimentation of the University of Zaragoza (License number PD03/15).

- **Practice 1.** Basic techniques of handling and restraining rodents: rat and mouse. Identification and sexing.
- **Practice 2.** Basic techniques of handling and restraining of lagomorphs used for animal experimentation: rabbit. Recognition of the main anatomical structures of small laboratory animals.
- **Practice 3.** Discussion of animal experimentation from a social perspective.

5.4.Planning and scheduling

Calendar of attendance sessions and presentation of works

Conducted lectures dates will be available on the website of the Faculty of Veterinary Medicine (link <http://veterinaria.unizar.es/>). This link will be updated at the beginning of each academic year.

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Conducted practical classes dates will be announced in advance, so that the students choose the best date that suits them. The approximate dates of the practices will be as follows:

Practice 1: Third week of October

Practice 2: Fourth week of October

Practice 3: During November

5.5. Bibliography and recommended resources

<http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>