

Academic Year/course: 2021/22

## 28437 - Wildlife

### Syllabus Information

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**Academic Year:** 2021/22

**Subject:** 28437 - Wildlife

**Faculty / School:** 105 - Facultad de Veterinaria

**Degree:** 451 - Degree in Veterinary Science

**ECTS:** 3.0

**Year:** 5 and 4

**Semester:** Second semester

**Subject Type:** Optional

**Module:**

## 1. General information

### 1.1. Aims of the course

The initial goal of the course is that the student understands and assumes the role of the veterinarian with the wild fauna, and zoological nuclei. These actions include management, handling, medicine, health and conservation of wildlife species and hunting in local and global contexts. The course will also promote understanding of the role of the wildlife veterinarian in the basic and applied research potential of the area.

Students will understand the individual of a particular species as part of an ecosystem and will understand its interrelationship with animal and human health. Likewise, students will begin to develop skills, abilities and aptitudes that allow them to identify, recognize, hierarchize and capitalize the wildlife resources and will be able to collaborate in the design of management and conservation policies.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda (<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>), in such a way that the acquisition of the learning results of this topic provides training and competence to contribute to some extent to its achievement:

Goal 3: Good health and well-being

Goal 4: Quality education

Goal 9: Industry, innovation and infrastructure

Goal 11: Sustainable cities and communities

Goal 12: Responsible consumption and production

Goal 13: Climate action

Goal 14: Life below water

Goal 15: Life on land

Goal 16: Peace, justice and strong institutions

### 1.2. Context and importance of this course in the degree

This course prepares students to know and understand the basic aspects of wildlife management, medicine, health and conservation in local and global contexts, always from the point of view of the work that the veterinarian can develop in this field. The purpose of the Wildlife program is to transmit to the student the essential knowledge that forms the basis of veterinary science applied to wildlife. The student will receive basic training that will allow him/her to apply this knowledge as a veterinarian to the needs of wild fauna in each time and situation.

In the Veterinary Degree at the University of Zaragoza, attention is paid to exotic animals (usually wild animals displaced from their natural environment and used as pets or "New Companion Animals") but there is no other subject dealing with the role of veterinarians in native wildlife. For this reason, this subject provides the Grade with a unique, multidisciplinary and transversal vision. While trying to teach genuine and probably unknown aspects for the students, at the same time, it tries to avoid repetition of contents with other subjects, of which the student will have to have the basic knowledge.

### 1.3. Recommendations to take this course

Wild Fauna tries to cover a very wide and diverse agenda, with a marked multidisciplinary character, in a short period of time and, therefore, it is highly recommended to attend all theoretical and practical sessions. Having acquired the competencies of the 1st, 2nd and 3rd courses of the Degree in Veterinary Medicine will ease their learning capacity on the subject. Likewise, the students should have an average knowledge of biology, beyond what they have learned in the Degree. The study of the

wild fauna in veterinary implies knowing what is its interrelation with the environment and, therefore, the knowledge of the aspects of bio-ecological interest of the main wild species. As in almost all subjects, it is very important to have a basic knowledge of English (minimum level B1) since the vast majority of the bibliography is in that language. The student should have passed subjects such as Epidemiology and Biostatistics, Ecology and Environment, Ethnology and Animal Welfare, Agronomy, Genetics, Parasitology, General Pathology and General Pathology.

## 2. Learning goals

### 2.1. Competences

#### Cross-cutting generic competences

The transversal competences that will be developed in the subject are:

- T04 Basic general knowledge of the area of work
- T11 Information management skills
- T13 Ability to adapt to new situations T16 Decision-making
- T17 Teamwork
- T20 Ability to work in an interdisciplinary team

#### Specific competences

The specific competencies that will be developed in the subject are:

- FBC03 Morphology, bionomy and systematics of animals and plants of veterinary interest FBC18 Ethical principles of the veterinary profession
- FBC19 Veterinary rules and regulations CCSA02 Diagnostic imaging and radiobiology CCSA03 Necropsy
- CCSA04 Recognition and diagnosis of different types of lesions and their association with pathological processes CCSA07 Diagnosis
- CCSA17 Infectious and parasitic diseases of veterinary interest including diagnosis and control.
- CCSA19 Health promotion in animal groups, including wild animals, in order to obtain maximum economic return in a socially, ethically and healthily acceptable manner.
- CCSA20 Technical measures and regulations for the prevention, control and eradication of animal diseases.

### 2.2. Learning goals

If students complete the course successfully, they should be able to

1. Know and interpret the legal framework on the conservation of wild fauna (fundamentally autonomous, national, European and international).
2. Know wildlife conservation strategies and the performance of a veterinarian in different scenarios, such as, for example, the conservation of endangered species, crimes related to the protection of fauna, conservation methods, etc.
3. Know the role of the veterinarian in a wildlife recovery centre: first aid, care, surgery, captive maintenance, recovery and release. Know the material, infrastructure and environments needed in rehabilitation centers.
4. Know the role of the veterinarian in the regular management and application of national legislation on hunting grounds. Knows how to establish active and passive surveillance programs.
5. Know the role of a veterinarian in collections, zoos and aquariums.
6. Is capable of assessing, diagnosing and treating the most frequent pathologies in wildlife: trauma, collisions, electrocutions, infectious and parasitic diseases.
7. Be familiar with the management of wounds and trauma, with the methodologies adapted for better individual and population care, with the interpretation of the different methods of diagnosis. It is capable of making appropriate decisions: sampling, treatment or euthanasia, among others.
8. Know the genetic balance and be able to analyse the genetic mechanisms that deteriorate the genetic structure of populations. Knows the effect of inbreeding, endogamia and mutation in the deterioration of the biological efficacy of the population.

### 2.3. Importance of learning goals

The student who has passed this course will have the minimum knowledge to begin the work of a veterinarian in any of the fields within wildlife: wild animals, hunting and zoo nucleus. This will open up a series of job opportunities that will ease their integration into the labour market. Likewise, this subject is important for its transversal aspects, relating multiple fields of veterinary medicine in one.

## 3. Assessment (1st and 2nd call)

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

#### Evaluation activities

The student must demonstrate that has achieved the intended learning outcomes through the following assessment activities

##### *Written test*

The acquisition of knowledge and skills transmitted in theoretical classes, seminars and, in most practices, will be assessed. It will be a multiple-choice question exam (4 options, just one right answer, no negative points) of 45 questions: 30 of theoretical knowledge and 15 of practical knowledge. The exam will be considered passed with the minimum mark (5) if 60% of its total value is exceeded, i.e. if 27 questions are answered correctly. The value of this test will represent 95% of the final mark.

##### *Practice*

The practice "Review of a topic" will be assessed through attendance and presentation of a paper by the group of students attending. The practice will be graded by its responsible teacher and its numerical value will oscillate between 0 and 10. The value of this practice will represent 5% of the final grade.

#### Marking system:

According to the national regulation Law 1025/2003, 5th of September which lays down the European system of credits and marking system for the university degree.

0-4,9: FAIL.

5,0-6,9: PASS

7,0-8,9: GOOD (NT).

9,0-10: EXCELLENT (SB).

As the article 158 of the Statutes of the University of Zaragoza lays down, provisional grades will be displayed at least for 7 days and students will be able to review them on the date, time and place provided for that purpose.

#### Tests for students who are not present or those who present themselves in other calls other than the first one.

The same type of examination will be applied for the written test. For the practical evaluation the pupil will perform a necropsy of a wild animal (bird/mammal/reptile) where he will have to demonstrate the ability to carry it out and to interpret the findings.

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

Due to the low number of credits in this topic, the main goal is to make an approach to the different subjects mostly using lecturer presentations, seminars, laboratory demonstrations and problem solving exercises.

### 4.2. Learning tasks

#### Lectures. 15 h

They will be undertaken using computer presentations that will include development of ideas, figures, images, graphics and layouts. Students will previously have the teaching material through the so called digital ring of the Unizar (ADD). The participation of students in posing questions or discussion of issues of particular relevance will be encouraged.

#### Developing skills

Skill in handling concepts. Ability to integrate ideas. Ability to relate concepts. Development of critical thinking. Ability to understand the field of veterinary professional performance in the recovery, conservation and maintenance of wild species. Ability to analyze information from different sources. Ability to consult bibliography.

#### Demonstrations. 15 h

Laboratory demonstrations and problem solving exercises (6 h)

They will include post mortem examination of wild animal or solving exercises under teacher supervision.

#### Seminars (4 h)

Two seminars will be performed, topics to be defined in each academic year.

#### External visits (5 h)

Two visits are programmed: (i) to the "La Alfranca" Wildlife Recovery Center and the "Los Sotos y Galachos del Ebro" Nature Reserve and (ii) to the Zaragoza's aquarium.

### 4.3. Syllabus

#### Lectures

Topic 1-2: Wildlife management: Concepts. Hunting species

Topic 3-4: Wildlife conservation strategies

Topic 5-8: Genetics

Topic 9: Recovery plans

Topic 11-13: Wildlife rescue centers. Medicine and surgery

Topic 14-15: Animal health. Infectious and parasitic diseases

## **Demonstrations**

Review of a topic (3)

Seminars (3)

Post mortem studies of wildlife (2h)

External visits (7h)

### **4.4. Course planning and calendar**

Calendar, schedules, mentoring and examination shall comply with the provisions of the academic calendar of the University of Zaragoza and the Faculty of Veterinary Medicine. The information will be available in Moodle on line course since the beginning of the academic year.

### **4.5. Bibliography and recommended resources**

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=28437>