

Academic Year/course: 2021/22

## 28416 - External Morphology: Morphological Assessment and Identification

### Syllabus Information

**Academic Year:** 2021/22

**Subject:** 28416 - External Morphology: Morphological Assessment and Identification

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

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

**ECTS:** 3.0

**Year:** 5 and 4 and 3 and 2

**Semester:** First semester

**Subject Type:** Optional

**Module:**

## 1. General information

### 1.1. Aims of the course

The graduate will be able to: 1) Understand external morphology as a product of adaptation and selection to the productive environment, 2) Evaluate the morphological quality of companion and production animals, from the genetic, clinical and zootechnical view, 3) Understand the techniques and systems of animal identification and traceability.

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

The course is in the second year, in the first semester, so it will have students who have already had previous contact with Veterinary Sciences in general and with Zootechnics in particular. This course is aimed at deepening and expanding the concepts learned in Anatomy and Ethnology, with an approach essentially applied to the morphological assessment and identification of domestic animals.

Learning and critically evaluating the morphological standards of the different animal breeds is an introduction to the professional reality in the veterinary clinic and in animal production, with which the subject plays an important role in the training of the future veterinarians.

### 1.3. Recommendations to take this course

It is a second year elective subject of the first semester. For an adequate learning of its contents it is necessary to have followed Embryology and Anatomy I and II and Ethnology and Animal Welfare, all of them first year subjects.

To carry out the practical activities, it is necessary to follow some safety recommendations that must be taken into account. Students have all the information available in the following links, as well as in the ADD courses for each of the subjects:

<https://veterinaria.unizar.es/estudiantes/formacion-prevencion-riesgos-y-seguridad#normas>

<https://veterinaria.unizar.es/prevencion/protocolosespecificosveterinaria>

<http://patologiaanimal.unizar.es/medidas-de-seguridad>

## 2. Learning goals

### 2.1. Competences

On successful completion of this course, students will be able to:

- ? Assess the external structure and relate it to the clinical and productive condition of domestic animals.
- ? Identify the zootechnical potential of animals according to their morphology.
- ? Issue an opinion on its genetic quality and usefulness.
- ? Advise breeders on the most advisable crosses to improve the morphology of their specimens.
- ? Advise participants in competitions and morphological exhibitions, and eventually act as a qualifying judge.
- ? Correctly identify animals and their products, in accordance with current legislation.

### 2.2. Learning goals

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

- Make a value judgment on the qualities and morphological defects of any important animal breed, in any domestic species.
- Know and apply the most appropriate animal identification methods in each case.

### 2.3. Importance of learning goals

- The ability to assess the suitability of the morphology of animals, based on their age, sex and usefulness, is an important auxiliary tool for veterinary clinical judgment on the health or disease status of an animal, collaborate in the numerous competitions and exhibitions of livestock and pets that are held throughout Spain, and advise breeders in their genetic improvement programs, especially where external morphology is the main selective criterion, as occurs in companion animals, which sometimes it leads to detrimental aberrations for animal welfare that it is the duty of the vet to help prevent.
- The appropriate knowledge and use of the various methods of animal identification are essential instruments for the veterinarian, in order to fulfill his tasks of guaranteeing the traceability of food intended for human consumption, safeguarding animal health, particularly in animal movements. and in the compulsory vaccination and livestock sanitation campaigns, and collaborate in the repression of the illegal transport of animals and the trafficking of protected species.
- In addition to learning and acquiring previously indicated competences, the student will be able to better understand and take advantage of other subjects that they will see throughout their studies, both in the area of ??Clinical Sciences (especially Medical Pathology and Propedeutics and Clinical Practicum), as well as in the zootechnical subjects of Genetics, and those of Integration in Animal Health and Production of the different livestock species.

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

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

The student will have to demonstrate that has reached the learning results foreseen in the evaluation of the different competences:

- The knowledge and understanding of the theoretical contents will be assessed with a multiple-choice question test.
- Practical skills will be assessed using a variety of methodologies:
- Attendance at the practical sessions will be controlled and computable.
- The teachers will be able to assess them at the end of the practical sessions by means of a simple test and/or the presentation of cases prepared in students' groups.
- Practical exercises will be included in the ADD for self-assessment purposes and in some cases applicable to ongoing assessment.
- The field activities (equidae review, agility) will be assessed taking into account the attitude shown during the same and team work.
- For the contents related to morphological evaluation, a final practical examination will be carried out based on photographs to be commented on.

The evaluation criteria will be the following:

- ? Theoretical exam, up to 70 points out of 100.
- ? Resolution of cases in the classroom and / or ADD, up to 20 points out of 100.
- ? Teamwork, up to 10 points out of 100.

To pass the exam, it is required to obtain at least 50% of the possible points for the theoretical content (35 points out of 70). The rest of the qualifications will be applied only after this minimum has been achieved.

The subject is passed with a grade equal to or greater than 5 points.

#### 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.

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

### 4.1. Methodological overview

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

- On-site theoretical classes, in which the previously planned program will be developed, which will be available in the ADD, complemented with other teaching resources (CD, paper documentation).
- Practical classes in a morphological assessment classroom in different animal species. Practical classes in the classroom of methods of identification and recognition of the age of animals.
- Practical Session in Equestrian Center to make a complete review of the specimens.
- Practical session on Agility as a model of animal sports activity
- Performing a team work on the regulations of any sport related to any animal species
- Practical exercises through short-term tests in the classroom and / or the ADD.
- Visit to an exhibition or fair

### 4.2. Learning tasks

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

- Theoretical classes in Classroom.
- Practical classes in Classroom, participated with students. Practical classes in Equestrian Center.
- Personal work (review, morphological evaluation of dairy cattle).
- Teamwork.

### 4.3. Syllabus

#### THEORETICAL PROGRAM

##### BLOCK MORPHOLOGY

1. External morphology: Stress and environment. Adaptation and biology of appearance. Macro and micro evolution of domestic animals.
2. Introduction to morphological assessment. Definitions of beauty, defect, beauty and racial standard. Overview of morphological and behavioral assessment.
3. Body regions of domestic animals, brief review of the regional nomenclature.
4. Morphological evaluation of the equido: Aplomos: definition and general evaluation. Defects with respect to lines 1 and 5. Defects with respect to lines 2 and 4. Defect with respect to line 3. Variation between species.
5. Morphological evaluation of bovine and other ruminants. Comparison and Linear Qualification, utility and description in general and, specifically, in dairy cattle. Score Cards, utility and description.
6. Morphological assessment of birds and judgment.
7. Morphological evaluation in companion animals.

##### IDENTIFICATION BLOCK

8. Identification of the age: the dental table. Evolution and relationship with chronological and physiological age in domestic species. Other bushes: hair, hooves, horns, ... in domestic and wild species. Age in birds.
9. Development and age. Determination of age by general and regional analysis of the animal. Signs for the determination of age. Shape and proportions in young and adult animals. Body development in species of heterogeneous adult weight.
10. Identification. Traceability Definitions. Identification and traceability in livestock. Areas involved and links. From the farm to the table. Traceability standards in livestock in Spain. SIRENTRA. RIGA. ROWING. Legislation in cattle, sheep and goats, equines, and pigs.

##### ANIMAL AND SPORTS BLOCK

11. The horse in sport. Races and modalities
12. Regulations for different tests: polo, jumps, horse racing, etc.
13. Other sports involving animals: colombiculture, pigeon racing, falconry, mushing
14. Agility

##### PRACTICAL PROGRAM

- Assessment of poise.
- Temperament and morphology
- Assessment of dental age in dogs
- Review in equines: Individual review, check and fix the regions - Determination of age by studying dental arches in equines, cattle. Regulations for sports tests related to pets
- Identification. Identification by species. Cattle, sheep-goats, equines, pigs, dogs, cats and ferrets. Methods: ear tags, passports, microchips.
- Agility as an example of a sports event

#### 4.4. Course planning and calendar

It will be adapted to the corresponding academic calendar, teaching a total of 15 theoretical hours and 15 practices per student.  
The theoretical and practical classes will be adapted to the corresponding Academic Calendar. The visit to the corresponding exhibition / fair will depend on the annual calendar that is planned this year.

List of training activities based on 3.0 credits (30 contact hours)  
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Activity	Hours theory	Hours practice	Practice group size	Professor
<b>MORPHOLOGY BLOCK</b>	<b>6</b>	<b>5</b>		
Body regions	1	---	---	GML
Morphological evaluation of livestock species	3	3	25	GML
Morphological evaluation in other companion animals	1	---	----	GML
Morphological assessment of birds and judgment.	1	---	----	GML
<b>IDENTIFICATION BLOCK</b>	<b>6</b>	<b>3</b>		
Animal identification	2	1	25	AA
Diagnosis of the age of animals	3	2	25	GML
<b>ANIMAL AND SPORT BLOCK</b>	<b>3</b>	<b>3</b>		
The horse in sport	2	1	---	GM
Other sports involving animals	1			AA
Agility	---	2	----	JE
<b>TRAVEL FAIR / CONTEST</b>		<b>4</b>		
TOTAL	15 (50%)	15 (50%)		

This course is made up of 3 blocks: Animal Identification, Morphology and Animals and Sport. In general, to take this subject, it is recommended to attend class in a participatory way, and to develop a continuous work on its contents. For this, books, articles and web pages will be indicated to follow and expand the contents taught in class.

The activities will be theoretical classes that are taught in the time slot from 18 to 19 hours, and practical classroom classes that are taught from 19 to 20 hours, and in some cases from 16 to 18 hours. The practical activities of this subject are of three basic types:  
- Demonstration of the usefulness and management of the main methods of animal identification.  
- Assessment of the qualities and morphological defects in different animal species. This activity will take place at different levels: In the classroom, in the ADD, or in an equestrian center  
- Teamwork on sports regulations in which domestic animal species are involved, which will be exposed in the classroom,

In addition, a visit to a fair / exhibition related to species treated in class will be planned.

The dates of classes and exams of the subject are described in detail on the Web of the Faculty of Veterinary Medicine (link: <http://veterinaria.unizar.es/gradoveterinaria/>). This link is updated at the beginning of each academic year.

#### 4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=28416>