



Universitat de Lleida

DEGREE CURRICULUM  
**DOMESTIC ANIMALS HEALTH  
AND CLINICS**

Coordination: SANCHEZ SALGUERO, XAVIER

Academic year 2022-23

Subject's general information

<b>Subject name</b>	DOMESTIC ANIMALS HEALTH AND CLINICS			
<b>Code</b>	100362			
<b>Semester</b>	ANUAL CONTINUED EVALUATION			
<b>Typology</b>	<b>Degree</b>	<b>Course</b>	<b>Character</b>	<b>Modality</b>
	Double bachelor's degree: Bachelor's Degree in Veterinary Medicine and Bachelor's Degree in Science and Production	5	COMPULSORY	Attendance- based
<b>Course number of credits (ECTS)</b>	12			
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	PRAEX	PRALAB	TEORIA
	<b>Number of credits</b>	4	2	6
	<b>Number of groups</b>	6	4	1
<b>Coordination</b>	SANCHEZ SALGUERO, XAVIER			
<b>Department</b>	ANIMAL SCIENCE			
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.			
<b>Language</b>	Catalan, Spanish and English			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ARRIETA PERNA, PAULA	paula.arrieta@udl.cat	2,4	
BASSOLS WOLF, MARTA	marta.bassols@udl.cat	2,4	
CASAS MARTIN, FRANCISCO JAVIER	javier.casas@udl.cat	13,6	
GRACIA GIL, ALBA MARIA	alba.gracia@udl.cat	2,6	
MOLIN MOLINA, JESSICA	jessica.molin@udl.cat	2,4	
SANCHEZ SALGUERO, XAVIER	xavier.sanchez@udl.cat	14,6	

## Subject's extra information

The constant work of the students is recommended in order to achieve the learning and to correctly follow the subject.

## Learning objectives

### Knowledge objectives

The final objective of the subject is to train and qualify students giving them the basic competencies to begin the clinical practice of small animals:

To study the patient's approach: clinical history, anamnesis, exploration, manipulation of pets. Taking different clinical samples.

To study the different diseases of dogs and cats, know how to identify them and assess the clinical picture.

To study the diagnostic tools that allow us to detect and differentiate the pathologies of small animals.

To study the main hygienic-dietetic, pharmacological, medical and surgical treatments.

To study the protocols of vaccination and desparasitación for a correct prophylaxis and control of the infectious and parasitic diseases of the small animals.

To study the basics of different veterinary specialties.

## Capacity objectives

To detect clinical signs and associate them with a specific organ or system.

To know the most common pathologies in the clinical practice of small animals.

To know the diagnostic tools that allow us to achieve the clinical diagnosis.

To understand the basic notions for the interpretation of the results of some diagnostic tests.

To establish a differential diagnosis that includes the possible pathologies.

## Competences

### Basic competences

CB1. To have and understand knowledge in an area of study that starts at the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the avant-garde from your field of study.

CB2. Apply your knowledge to your work or vocation professionally and have the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within your area of study.

CB3. Ability to collect and interpret relevant data (usually within their area of study) to issue judgments that include a reflection on relevant issues of a social, scientific or ethical nature.

CB4. To be able to transmit information, ideas, problems and solutions to a specialized audience as not specialized.

CB5. Know how to develop those learning abilities necessary to undertake further studies with a high degree of autonomy.

### General competences

CG2. Prevention, diagnosis and individual or collective treatment, as well as the fight against animal diseases, are considered individually or in a group, particularly zoonoses.

CG4. The obtaining in optimal and economically profitable conditions of products of animal origin and the assessment of its environmental impact.

CG5. Knowledge and application of legal, regulatory and administrative provisions in all areas of the veterinary profession and public health, including the ethical implications of health in a changing global context.

CG6. Development of professional practice with respect to other health professionals, acquiring skills related to team work, efficient use of resources and quality management.

CG7. Identification of emerging risks in all areas of the veterinary profession.

### Specific competences

CE14. Identify and apply the clinical examination methods and procedures, complementary diagnostic techniques and their interpretation, as well as identify and apply the foundations of the necropsies.

CE16. Identify and apply the recognition and diagnosis of the different types of lesions and their association with the pathological processes.

CE17. Know and apply the clinical study of the patient and the medical, surgical or hygienic-dietary treatments that he requires, as well as sporadic diseases that affect groups.

CE19. Understand the principles of reproduction, part, puerperium and assisted reproduction: Cures and illnesses.

CE20. To know the general pharmacological bases and study the different types of drugs, pharmacotherapy, identify natural and synthetic toxics and apply the principles of animal and environmental toxicology.

CE22. Know the infectious and parasitic diseases of veterinary interest including their diagnosis and fight as well as apply the bases of Zoonoses and Public Health.

CE39. Treat and manipulate animals safely and humanely, and instruct other people on how to properly perform these techniques.

CE40. Perform basic analytical techniques and interpret their clinical, biological and chemical results, interpret the results of the tests generated by other laboratories as well as collect, preserve and send all kinds of samples with their corresponding report.

CE41. Diagnose the most common diseases by using different general and instrumental techniques.

CE42. Use radiographic and ultrasonographic equipment, as well as other equipment that can be used as a means of diagnosis, in a secure way and complying with the regulations.

CE44. Address emergencies and first aid in veterinary medicine.

CE46. Evaluate and interpret the productive and health parameters of an animal group, considering the economic and welfare aspects.

## **Transversal competences**

CT1. Acquire an adequate understanding and oral and written expression of Catalan and Spanish.

CT2. Acquire a significant command of a foreign language, especially English.

CT3. Acquire training in the use of new technologies and information and communication technologies.

CT4. Acquire basic knowledge of entrepreneurship and professional environments.

CT5. Acquire essential notions of scientific thought.

## **Subject contents**

### **THEORY PROGRAM**

#### **Section 1**

1. General and preventive medicine. Protocols for vaccination and deworming (2h) JC 2. Diagnostic tools available in clinical practice (2h) JC

#### **Section 2**

##### 3. Cardiology

3.1 Introduction to small animal cardiology. Basic concepts of cardiac radiology and echocardiography. Cardiac signs (2h) XS

3.2 Most frequent congenital heart diseases (2h) XS

3.3 Most commonly acquired cardiopathies (2h) XS

##### 4. Respiratory system

4.1 Anatomical and physiological reminder of the respiratory tract. Auscultation and respiratory noises. Respiratory symptomatology (2h) XS

4.2 Most frequent respiratory pathologies and hygiene-sanitary measures 4.3 Mediastin and pleura (2h) XS

## Section 3

5. Digestive system

5.1 Vomit (2h) JC

5.2 Regurgitation (2h) JC

5.3 Diarrhea 5.4 Health measures (2h) JC

6. Liver and pancreas (2h) JC

## Section 4

7. Endocrine system (6h) JC

8. Urogenital apparatus (urinary 4h and 2h genitalia) AG

## Section 5

9. Introduction to veterinary specialties

9.1 Ethology (2h) Sandra (guest)

9.2 Dermatology (4h) JC

9.3 Ophthalmology (4h) MB

9.4 Neurology: neurological examination, location of the lesion, VITAMIND and diagnostic methods (4h) JM

9.5 Oncology: pathophysiology, cell strains and diagnostic approach (4h) JM

9.6 Traumatology and musculoskeletal (4h) PA

10. Most frequent urgencies in clinical practice (4h) AG

## PRACTICE PROGRAM

### Section 1

1. Anamnesis, medical record and clinical examination of the animal XS

2. Basic interpretation of blood smears, hematology and blood biochemistry JC

3. What imaging diagnostic tool to use and its main differences XS

### Section 2

4. Auscultation and electrocardiogram XS

5. Echocardiography XS

6. Clinical cases of cardiology (I) XS

7. Clinical cases of cardiology (II) XS

8. Clinical cases of respiratory (I) XS

9. Clinical cases of respiratory (II) XS

### Section 3

10. Clinical cases of gastrointestinal (I) JC

11. Clinical cases of gastrointestinal (II) XS

## Section 4

12. Clinical cases of endocrinology (I) JC
13. Clinical cases of endocrinology (II) JC
14. Urinalysis JC
15. Urogenital clinical cases (I) JC
16. Urogenital clinical cases (II) AG
17. Imaging diagnosis of the urogenital tract XS
18. Detection of abdominal pathologies by ultrasonography XS
19. Small animal CT: thorax and abdomen XS

## Section 5

20. Clinical cases of ethology Sandra
21. Dermatological examination, sampling and observation in the microscope JC
22. Clinical cases of dermatology JC
23. Ophthalmological examination and diagnostic tools MB
24. Clinical cases of ophthalmology MB
25. Neurological examination and diagnostic tools JC
26. Clinical cases of neurology JM
27. Clinical cases of oncology JM
28. Orthopedic examination and diagnostic tools PA
29. Clinical cases of traumatology and musculoskeletal PA
30. Emergency clinical cases AG

*XS: Xavier Sánchez, JC: Javier Casas, MB: Marta Bassols, AG: Alba Gracia, JM: Jéssica Molín, PA: Paula Arrieta.*

## Methodology

Teaching activity is structured in theory and practice sessions.

1. Theoretical classes\*: they are based on lectures and are intended to convey the basic knowledge of each subject.
2. Practices\*: they are based on sessions of seminars, clinical cases and practical application of theoretical knowledge. The teaching material of the subject will be shared as a resource on the virtual campus.

## RULES OF THE SUBJECT

N1. No changes of groups or practices are allowed except those that are justified by official medical certificate or exchanged participants.

N.2 It is required to wear with a surgical pajamas and / or robe to access the practices that are carried out in the operating room, inquiries or in the radiodiagnosis service of the Torrelameu Educational Surgical Unit. Failure to meet this requirement will allow students not to enter into practice.

N3. In order to be able to comply with the teaching program, the punctuality will be appreciated in each of the theoretical and practical sessions. You will not be able to access a session if more than 10 minutes after the start time.

N4. If a copy attempt is detected in any of the examinations of the subject, the immediate expulsion will be carried out and it will have an impact on the overall course.

***\*Due to the health situation, the methodology of the theoretical and practical classes may be altered throughout the course.***

## Evaluation

### Theory (50%)

The evaluations of the program of theory will be by means of test\*.

Theory exams: 4 (partial). Everyone has the same importance and weight in the theoretical evaluation of the subject.

A 4 is needed as the minimum score of each exam to be able to do half with the rest of the exams.

A minimum mark of 5 is needed from the global part of the theory to be able to pass the subject.

### Practice (50%)

Attendance and participation in practices will have a 10% impact on the final grade of the subject. The resolution of clinical cases, as well as practice sessions as well as exams, will result in 20% of the final mark. The practical exams will have a 20% impact on the final grade.

Practice exams\*: 4 (partial). Everyone has the same importance and weight.

A 4 is required as the minimum score of each section (attendance, clinical cases and exams) to be able to do half with the rest of the sections. If you do not get this minimum score, the subject will be suspended.

A minimum mark of 5 is needed from the global part of the practical part to be able to pass the subject.

***A final grade of 5 is required as a minimum score to pass the subject\*\*.***

### Remedial examination

Remedial examination of theory will be carried out at the end of the course.

There will be no remedial examination of the practical part of the subject, if the minimum mark of each section or the global one of this part is not reached, it is less than 5 the subject will be suspended.

There is the possibility to improve marks during the remedial examinations, being the final grade obtained at that time. The same thing happens with the remedial examination marks.

The approved parts of the theory exams will do the same with the other parts that have a minimum score of 4 and depending on the average grade, the necessary parts must be recovered. The parts that do not reach a minimum score of 4 will not make a half and will have to be recovered.

*\*The tests that are carried out during the subject, both theory and practice, will be multiple answer options (a, b, c, d) where the correct answer adds 1 point and the incorrect answer remains 0.25 points. Unanswered answers will subtract 0.1 points. Due to the health situation, the methodology of the evaluation may be altered throughout the course.*

*\*\*From scores equal to or greater than 8 in the final grade, the grade may be weighted to grant excellent and honors if the coordinator of the subject considers it appropriate.*



## Bibliography

### BASIC BIBLIOGRAPHY

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- Ettinger, S.J., Feldman, E.C., Côté, E., 2017. Textbook of veterinary internal medicine expert consult. Elsevier, St.Louis, Missouri.
- Nelson, R., Couto, C.G., 2019. Small Animal Internal Medicine. Elsevier, St.Louis, Missouri.
- Thrall, D.E., 2018. Textbook of veterinary diagnostic radiology. Elsevier, St.Louis, Missouri.

### SUPPLEMENTARY BIBLIOGRAPHY

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St.Louis, Missouri.

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Withrow, S.J., Vail, D.M., Page, R., 2013. Withrow and MacEwen's Small Animal Clinical Oncology. Elsevier, St.Louis, Missouri.

## **JOURNALS AND WEBSITE OF INTEREST**

Journal of the American Veterinary Medical Association

<http://avmajournals.avma.org/loi/javma>

Journal of the American Animal Hospital Association

<https://www.aaha.org/professional/resources/jaaha.aspx>

Journal of Veterinary Internal Medicine

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1939-1676](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1939-1676)

Veterinary clinics of North America Small Animal Practice

<http://www.vetsmall.theclinics.com>

Journal of Small Animal Practice

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1748-5827](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1748-5827)

American Journal of Veterinary Research

<http://avmajournals.avma.org/loi/ajvr>

Veterinary radiology and ultrasound

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1740-8261](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1740-8261)

Revista Argos

<http://argos.portalveterinaria.com>

Revista AVEPA

<http://www.clinvetpeganim.com>

Revista Consulta

<https://www.consultavet.org/>

Revista científica española de medicina interna de pequeños animales

<http://www.webdeveterinaria.com/tienda/revista-ce-medicina-interna-de-pa>

Revista CITOS

<http://www.onkos.es/portal/category/revista-citos/>

VIN (veterinary information network)

<http://www.vin.com>

The Veterinary Society of Surgical Oncology (VSSO)

<https://www.vssso.org/index.php/education-new>

Vet-Anatomy

<https://www.imaios.com/es/vet-Anatomy>