Information about the subject

Degree: Bachelor of Science Degree in Veterinary Medicine

Faculty: Faculty of Veterinary Medicine and Experimental Sciences

Code: 1260305 **Name:** Clinic and health in wild and exotic animals

Credits: 6,00 **ECTS Year:** 3 **Semester:** 2

Module: Module of Clinical Sciences and Animal Health

Subject Matter: Clinical Sciences and Animal Health **Type:** Compulsory

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

Module organization

Module of Clinical Sciences and Animal Health

Subject Matter	ECTS	Subject	ECTS	Year/semester
Alterations in Structure and Function, and Fundamentals of Diagnosis	36,00	Clinical diagnostic techniques I (Clinical Propedeutics)	6,00	3/1
		Clinical Diagnostic Techniques II (Imaging Diagnosis)	6,00	3/1
		Histopathology and General Pathological Anatomy	6,00	2/1
		Physiopathology and general integrated Pathology I	6,00	2/1
		Physiopathology and general integrated Pathology II	6,00	2/2
		Special pathological anatomy	6,00	2/2
Pharmacology and Therapeutics	12,00	Pharmacology and Toxicology	6,00	3/1
		Pharmacotherapy, preventive medicine and veterinary hygiene	6,00	5/1
Clinical Sciences and Animal Health	60,00	Clinic and health in equines	6,00	3/2
		Clinic and health in water animals	6,00	5/1
		Clinic and health in wild and exotic animals	6,00	3/2

Clinical Sciences and Animal Health	Clinic and health on the farm I	6,00	4/1
	Clinic and health on the farm II	6,00	4/2
	Epidemiology	6,00	3/1
	Pet Clinic	6,00	3/2
	Reproduction and Obstetrics	6,00	3/1
	Veterinary Surgery I	6,00	3/2
	Veterinary Surgery II	6,00	4/1

Recommended knowledge

Advanced knowledge of anatomy and animal physiology. The student must know and identifi the basic groups of biological agents (parasites, fungi, viruses and bacteria). Because the clinical nature of the subject, the student must manage fluently the knowledge acquired in the subjects of "Patophysiology and general pathology I and II". It is strongly recommended to have previously studied the subjects of "Diagnostic techniques I and II"

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

R1	The student is able to solve problems related to the contents of the module.
R2	The student knows how to use different working techniques in the laboratory and interpret the results.
R3	The student is capable of working in a laboratory correctly performing the basic operations both in the planning and development of each of the laboratory practices.
R4	The student searches bibliographic information from different sources and knows how to analyse it with a critical and constructive spirit.
R5	Defending their work or arguing the questions asked according to rational criteria.
R6	The student is able to do a complete clinical examination.
R7	The student is able to write documents related to the subject and work in a team.
R8	The student knows and understands the anatomy and physiology of exotic animals.
R9	The student is able to make a complete clinical exploration, adapting it to the different taxonomic groups.
R10	The student knows the prophylaxis and hygienic-dietary or medicine therapy of the main diseases of dogs and cats.
R11	The student searches bibliographic information from different sources and knows how to analyse it with a critical and constructive spirit.
R12	The student argues according to rational criteria based on his or her work.
R13	The student has understood and assimilated the theoretical contents of the module.

Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB2	Capacity to apply knowledge to work or occupation in a professional way and have the competences that are proved by preparing and arguing topics and problem-solving in their specific field of study.				x
CB3	Capacity to gather and interpret relevant data usually within their specific field of study and capacity to make judgments that include reflection on relevant social, scientific or ethical issues.			x	
CB4	Capacity to communicate information, ideas, problems and solutions at specialist and non-specialist levels.			x	
CB5	Capacity to develop those learning skills needed to undertake further studies with a high degree of autonomy.		x		

GENERAL		Weighting			
		1	2	3	4
CG0	Capacity to speak well in public.		x		
CG2	Understanding and applying prevention, diagnosis and individual or collective treatment , and control of animal diseases, individually or in groups, with special attention to zoonoses.				x
CG3	Understanding and applying control of animal breeding, management, health, reproduction, protection, and feed as well as improving production.				x
CG5	Understanding and applying laws, regulations and administrative provisions in all areas of the veterinary profession and public health, understanding the ethical implications of health in a changing global context.		x		
CG6	Developing professional practice, acquiring skills related to teamwork, with an efficient use of resources and quality management.			x	

CG7	Identifying emerging risks in all areas of the veterinary profession.	x			

SPECIFIC		Weighting			
		1	2	3	4
E24	Knowing and applying methods and procedures of clinical examination, additional diagnostic techniques and their interpretation.				x
E25	Knowing and applying imaging diagnostic and radiation biology.			x	
E26	Knowing and applying necropsy.		x		
E27	Knowing and applying recognition and diagnosis of different types of injuries and their association with pathological processes.				x
E28	Knowing and applying the clinical study of patients and medical, surgical or hygienic-dietary treatments required, as well as sporadic diseases affecting groups.			x	
E29	Knowing and applying diagnosis.				x
E30	Knowing and applying surgical techniques used in veterinary.	x			
E31	Knowing and applying animal anesthesia and resuscitation.		x		
E36	Knowing and applying pharmacotherapy.		x		
E39	Knowing and applying transmission and maintenance of disease and methods of study of disease in populations.		x		
E40	Knowing and applying infectious and parasitic diseases related to veterinary practice including diagnosis and control.				x
E41	Knowing and applying zoonoses and public health.			x	
E42	Knowing and applying the promotion of collective health in animals, including wildlife, in order to maximize the economic performance in a social, ethical and healthy way.			x	
E43	Knowing and applying technical measures and regulations for the prevention, control and eradication of animal diseases.		x		

TRANSVERSAL		Weighting			
		1	2	3	4
T1	Capacity of analysis, synthesis, implementation of knowledge for problem-solving and decision-making.			x	
T2	Understanding and applying the scientific method to professional practice including evidence-based medicine.				x
T3	Basic knowledge of the veterinary profession: legal, economic, administrative, planning and time management issues and the veterinarians' society together with the importance of monitoring quality, standardization and protocols of veterinary practice.	x			
T4	Mastering fluency in oral and written mother tongue communication, listening and responding effectively using a language appropriate to audience and context.		x		
T6	Using information technology to communicate, share, search for, collect, analyze and manage information, especially related to the veterinarian practice.		x		
T7	Ability to adapt to new situations, self-critical ability, being aware of personal limitations and understanding when and where seeking and obtaining advice and professional help.	x			
T8	Efficient and effective work, both independently and as a member of a multidisciplinary team or unit, showing respect, appreciation and sensitivity to the work of others.			x	
T9	Keeping an ethical behaviour in the exercise of given responsibilities toward the profession and society.		x		
T10	Ability to learn, to research, and to be aware of the need to keep knowledge updated, and attending training programs.		x		

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	40,00%	Written assessment of acquired knowledge and skills. The test may consist of a series of open-ended questions or multiple-choice questions about the theoretical contents of the module and/or practical exercises (problem-solving).
	15,00%	Evaluation of the practical laboratory work, which must demonstrate the competences acquired by the student and his or her ability to use them to solve the different situations and problems that arise in a laboratory; this assessment may consist of one of the following methods, or a combination of several of them: an individual written test, the individual or group performance of a laboratory experience, the delivery of an individual or group report on the work carried out in the laboratory.
	15,00%	Evaluation of practical work in a clinic through which the student must demonstrate the competences acquired and the ability to use them to solve the different situations and problems that arise in a clinic; this assessment may involve one of the following methods, or a combination of several of them: a written individual test, the individual or group performance of a clinical experience, the delivery of an individual or group report on the work carried out in the laboratory.
	20,00%	Evaluation of group work through a system of continuous assessment throughout the course based on the delivery of assignments the objectives and content of which will be proposed by the teacher.

10,00%	Evaluation of activities in which the student must do some research individually and structure information related to each of the topics through a system of continuous assessment throughout the course based on the delivery of papers, the objectives and contents of which will be proposed by the teacher.

Observations

* the average mark must be equal to or greater than 5, in order to be taken into account with the rest of the items.
The theoretical exam will consist of a part of the test and a part of short questions. The test 40 multiple-choice questions (each question with 4 options, of which only one is correct). It is essential to obtain a grade equal to or greater than 4 in the test part in order to continue evaluating the exam. The proportion of 3 incorrect questions will subtract a correct one. Failure to pass the theoretical part will make it impossible to pass the course as a whole.
Attendance at practices is not considered compulsory. Failure to complete the practices will significantly influence the mark obtained in this part and will make it difficult to pass the practical exam. During the practical sessions the teacher will control the attendance and the attitude of each student. Factors such as attention, degree of participation and interest shown during practice will be taken into account.
The evaluation of the practical activities (practical exam) will consist of a test that evaluates one or more aspects of the practices carried out during the course, through the carrying out of experiences together with the answer to oral questions.
In the case of second registrations the evaluation items, these approved qualifications will be kept for 1 year, for having passed the required competences.
Award Criteria for Honor Enrollment: At the discretion of the teacher, an honor enrollment can be awarded for every 20 students (not for a fraction of 20; except for the first 20 students). Only honors may be awarded on the first call of the student's first year of enrollment in the subject.
Review of exams: after the publication of the notes, the student will have the exam review times published on the intranet to review their exam, unless specifically indicated otherwise by the teaching staff, outside these hours the exams Those students who for various reasons do not attend the evaluation of some of the parties on the official date of the calls, may carry out the extraordinary evaluation through an oral exam.

MENTION OF DISTINCTION:
According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 (“Sobresaliente”). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1 On-site training activity aimed primarily at acquiring knowledge acquisition skills. It is characterised by the fact that students are spoken to. Also called master class or exposition, it refers to the oral presentation made by the teacher, (with the support of blackboard, a computer and a projector for the display of texts, graphs, etc.), in front of a group of students. They are expository, explanatory or demonstrative sessions of contents. The size of the group is determined by the limit or physical capacity of the classroom; therefore, it is a single group.

M2 On-site training activity aimed primarily at obtaining knowledge application and research skills. Knowledge is built through interaction and activities. The activity consists of supervised monographic sessions with shared participation (teachers, students, experts). The size of the group is variable, from one large group to various small groups, with a minimum of 6 students to ensure interaction. The evaluation will be based on follow-up records kept by the teacher. Participation and the development of the capacity to problematize should be taken into account.

M3 On-site group-work training activity oriented toward problem solving under the supervision of a teacher. It would correspond to "Animal-free supervised practical work", type e1, from the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students, to differentiate it from a master class.

M4 On-site training activity in groups that takes place in the classroom. It includes working with documents and formulating ideas without handling animals, organs, objects, products, or corpses (e.g., work with articles or documents, clinical case studies, diagnostic analyses, etc.). It would correspond to "Animal-free supervised practical work", type e1, from the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M5 On-site training activity in groups that takes place in the Computer Lab where the computer is used as support for learning. It includes work with computer models, specific software, Web queries, etc. It would correspond to "Animal-free supervised practical work", type e1, from the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M6 On-site training activity in groups carried out in the laboratory. It includes the sessions where the students develop laboratory experiments, make dissections or use the microscopes for the study of histological or histopathological samples actively and autonomously, under the supervision of the professor. It also includes work with healthy animals, objects, products, corpses (e.g., animal handling, bacteriological practices, physiology or biochemistry, meat inspection, etc.). It would correspond to the "Supervised practical non-clinical animal work" type e2 of the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M7 On-site training activity that is defined as the clinical practical work developed in the Veterinary Clinical Hospital or clinical centres ascribed to the University, as well as itinerant clinical practices, mainly with ruminants, equids, pigs, birds and aquatic animals. Also included are necropsies, surgical workshops and training in clinical examination techniques or diagnosis with healthy patients. In these practical sessions the student will always work with animals, which can be healthy (e.g. propaedeutic or obstetrics) or clinical cases (individual or collective), including a protocol or work scheme, being supervised by a teacher and assuming the provision of a service. This type of training corresponds to type e3 of the EAEVE European evaluation called "Clinical Training" (strickly hands-on)". The size of the group will be 5 students or fewer.

M8 A set of on-site training activities carried out by the teacher to provide personalised attention to the student or in small groups with the aim of reviewing and discussing the materials and topics presented in classes, seminars, readings, carrying out projects, etc. The aim is to ensure a truly comprehensive education of the student rather than a mere transfer of information. It is, therefore, a personalized assistance relationship in which the tutor assists, facilitates and guides one or more students in the learning process.

M9 Set of processes that attempt to evaluate the learning outcomes of students expressed in terms of acquired knowledge, capacities, skills or abilities developed and manifested attitudes. It covers a wide range of activities that can be developed for students to demonstrate their training (e.g. written, oral and practical tests, projects or assignments). It also includes the Official Calls.

M10 Autonomous training activity, including activities and coursework, bibliographic searches. The results obtained from unsupervised group and teamwork will be evaluated, with particular attention paid at the time of evaluation to the acquisition of specific knowledge development skills through group work.

M11 Autonomous training activities related to personal study, or the preparation of individual course assignments. The individual preparation of readings, essays, problem solving, papers, reports, etc. will be evaluated through presentations or submissions during theoretical classes, practical classes, seminars and/or tutorials. The evaluation of the submitted papers will consider the structure of the paper, the quality of the documentation, originality, spelling and presentation.

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons (TL) M1	R1, R3, R4, R5, R8, R10, R11, R12, R13	60,00	2,40
Seminars (S) M2	R1, R5, R11, R12	4,00	0,16
Laboratory Practice (LP) M6	R1, R2, R3, R4, R5, R6, R7, R8, R9, R11	20,00	0,80
Clinical Practice (CP) M7	R4, R5, R6, R7, R8, R9, R10, R11, R12, R13	4,00	0,16
Tutorial M8	R5	2,00	0,08
TOTAL		**90,00**	**3,60**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Group work M10	R1, R4, R5, R7, R11, R12, R13	20,00	0,80
Individual work M11	R1, R4, R5, R11, R12	40,00	1,60
TOTAL		**60,00**	**2,40**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
WILD ANIMALS CLINICAL MEDICINE. INTRODUCTION	Introduction to ecopathology Tracking and capturing wildlife animals. Pathology in wild animals.
THE ROLE OF THE VETERINARIAN IN CONSERVATION MEDICINE	Interaction between ecosystem, animal and human health The role of the veterinarian in the Fauna Recovery Centers The veterinarian in hunting activity.
AVIAN MEDICINE	Bird anatomy and physiology. Clinical examination and sampling of birds. Common diseases in avian medicine (clinical signs, differential diagnosis, diagnostica and therapeutic protocol)
SMALL EXOTIC MAMMALS MEDICINE	Anatomy and physiolog of small mammals (guinea pig, chinchilla, rabbit and ferret). Physical examination and blood sampling in small mammals. Common diseases in small mammal medicine (clinical signs, differential diagnoses, diagnostic and therapeutic protocol)
REPTILE MEDICINE	Anatomy and physiology of reptiles. Physical examination and blood sampling of reptiles. Common diseases in reptiles (clinical signs, differential diagnoses, diagnostic and therapeutic protocol).

Organization of the practical activities:

	Content	Place	Hours
PR1.	PHYSICAL EXAMINATION IN BIRDS	Drylab	4,00
PR2.	PHYSICAL EXAMINATION IN SMALL MAMMALS	Drylab	4,00
PR3.	PHYSICAL EXAMINATION IN REPTILES	Drylab	4,00
PR4.	LABORATORY DIAGNOSIS IN EXOTIC ANIMALS	Laboratory	4,00
PR5.	ROTATION (HOSPITAL UCV)	Field visit	4,00
PR6.	TECHNICAL VISITS	Technical visit	3,00
PR7.	SEMINAR. CLINICAL CASES	Lecture room	3,00

Temporary organization of learning:

Block of content	Number of sessions	Hours
WILD ANIMALS CLINICAL MEDICINE. INTRODUCTION	1,00	2,00
THE ROLE OF THE VETERINARIAN IN CONSERVATION MEDICINE	7,00	14,00
AVIAN MEDICINE	13,00	26,00
SMALL EXOTIC MAMMALS MEDICINE	13,00	26,00
REPTILE MEDICINE	11,00	22,00

References

Aguilar & Hernández. 2010. Atlas de Medicina de Animales Exóticos. Intermédica

Aguirre, A. 2002. Conservation Medicine: Ecological Health in Practice. Oxford University Press

Campbell. 2013. Avian and Exotic Animal Hematology and Cytology. WILEY-BLACKWELL

Harrison, G. and Lightfoot, T. 2005. Clinical Avian Medicine Volumes I & II, 1st edition

Jacobson, E. 2010. Infectious Diseases and Pathology of Reptiles: Color Atlas and Text. CRC PRESS

Mader,D. 2007. Reptile Medicine and Surgery 2nd ed. ELSEVIER

McArthur. 2008. Medicine and Surgery of Tortoises and Turtles BLACKWELL

Meredith & Delaney. 2010. BSAVA Manual of Exotic Pets, 5th Edition. British Small Animal Veterinary Association. Iowa State University Press

Miller, Fowler. 2011. Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 7, 1e ELSEVIER

O'Malley B. 2007. Anatomía y fisiología clínica de animales exóticos Editorial Servet. Zaragoza

Orós, J. 2008. Atlas de Patología en reptiles. Intermédica

Paterson, S. 2008. Skin Diseases of Exotic Pets. WILEY-BLACKWELL

Quesenberry. 2011. Ferrets rabbits and rodents: clinical medicine and surgery ELSEVIER

Ritchie, B., Harrison, G. y Harrison, L. 1997. Avian Medicine: Principles and Application

Valls y Verges. 2012. Casos clínicos de animales exóticos. Servet

West / Heard / Caulkett. 2013. Zoo Animal and Wildlife Immobilization and Anesthesia. WILEY-BLACKWELL

Williams, D. 2012. Ophthalmology of Exotic Pets. WILEY-BLACKWELL

Wobeser, GA. 2005. Essentials of Diseases in Wild Animals, Blackwell Publishing Professional,

Ames, IA.

Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

[X] Microsoft Teams

[ ] Kaltura

Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

X	Microsoft Teams
	Kaltura

Explanation about the practical sessions:

The clinical practices and seminars will be carried out online. Videos and images will be used to explain the clinical procedures. They will be done through Teams and CAMPUS-UCV.
The presentation of clinical cases and works will be carried out through Teams (oral presentation) and CAMPUS-UCV (resolution of questionnaires).

2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

[X] The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

[ ] The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used
Practical exam	30%	Written test (multiple choice questions and / or short questions and / or clinical cases)	Teams, UCVnet

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: