



Information about the subject

Degree: Bachelor of Science Degree in Veterinary Medicine

Faculty: Faculty of Veterinary Medicine and Experimental Sciences

Code: 1260404 **Name:** Clinic and health on the farm II

Credits: 6,00 **ECTS Year:** 4 **Semester:** 2

Module: Module of Clinical Sciences and Animal Health

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

Department: Animal Production and Public Health

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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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

Knowledge of basic aspects of Microbiology, Immunology, Parasitology, Epidemiology, General Physiopathology, Pathology, Pharmacology and Therapeutics.



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 collect biological samples and process them.
- R8 Being able to establish a health programme in the different livestock farms.
- R9 The student is able to write a comprehensible and organized text on various aspects of livestock diseases, in the veterinary field, individually or in a team.
- R10 The student searches bibliographic information from different sources and knows how to analyse it with a critical and constructive spirit.
- R11 The student argues according to rational criteria based on his or her work.
- R12 The student knows and identifies the different infectious and parasitic diseases affecting ruminants, with their aetiology, epidemiology, pathogenesis, and clinical and lesional profiles.
- R13 The student is able to make the diagnosis of the diseases mentioned above and establish a treatment.



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		
E32 Knowing and applying reproduction, birth and postpartum: care and disease.			X	
E33 Knowing and applying assisted reproduction.	X			
E34 Understanding and applying fish pathology.	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.
	10,00%	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.



15,00%

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

IMPORTANT: to pass the course it is essential to obtain a grade equal to or greater than 5.0 in each of the final written tests, both theory and practical.

- Attendance to practices is mandatory. Failure to attend the practicals will imply the completion of a final skills exam in the laboratory (in addition to the written tests).
- Up to two points may be subtracted from the exam grade for spelling mistakes.
- Those students who for different reasons do not attend the evaluation on the official date of the calls, the evaluations may be carried out with an oral exam.
- For second and subsequent enrollments, approved parts will be saved for one academic year. In the case of implementing new assessment instruments, they must be carried out by all students.

Criteria for awarding honors: In accordance with the general regulations that indicate that only one honors degree can be given for every 20 students, not for a fraction of 20, with the exception of the case of groups of less than 20 students in total, in which an enrollment can be given.

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" (strictly 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, R5, R8, R12, R13	60,00	2,40
Laboratory Practice (LP) M6	R2, R3, R11	15,00	0,60
Clinical Practice (CP) M7	R1, R6, R7, R8, R11	15,00	0,60
Tutorial M8	R1, R5, R8, R12, R13	2,00	0,08
Evaluation (Ev) M9	R1, R2, R5, R8, R12, R13	3,00	0,12
TOTAL		95,00	3,80

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Group work M10	R1, R2, R4, R5, R9, R10, R11	33,00	1,32
Individual work M11	R1, R4, R5, R9, R10	22,00	0,88
TOTAL		55,00	2,20



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
GENERAL ISSUES	Introduction to ruminant diseases
RESPIRATORY DISEASES	Bovine Respiratory complex. Pasteurelosis. Bovine Infectious Rhinotracheitis. Bovine Contagious Pleuropneumonia. Small Ruminant Pasteurelosis. Caprine Contagious Pleuropneumonia. Enzootic Nasal Adenocarcinoma. Ovine Pulmonary Carcinoma. Maedi Visna/ Caprine Arthritis encephalitis (lentiviruses) Parasitic Bronchopneumonias. Oestrosis
GASTROINTESTINAL DISEASES	Neonatal Diarrhea Syndrome. Enterotoxemias. Salmonellosis. Paratuberculosis. Pestivirus: Bovine Viral Diarrhea (BVD). Gastrointestinal Parasitic Diseases: coccidiosis and protozoosis. Digestive nematodosis. Trematodosis and digestive cestodosis. Metabolic disorders that cause pathology in bovine. Ruminant tympany (Bloat).
RENAL AND URINARY DISEASES	Pielonefritis. Toxic nephritis. Glomerulonephritis Urolitiasis
REPRODUCTIVE DISORDERS	Brucellosis. BVD and BIR as abortion agents. Listeriosis. Leptospirosis. Campilobacteriosis. Ovine Enzootic Abortion. Q Fever. Bovine Genial Trichomonosis. Fungic Abortion. Toxoplasmosis. Neosporosis. Management of common obstetric problems.
DISEASES OF THE MAMMARY GLAND	Bovine and Small ruminant mamitis.
SYSTEMIC DISEASES	Tuberculosis. Foot and Mouth Disease. Bluetongue. Symptomatic and bacterial anthrax. Malignant catarrhal fever. Muscular cysticercosis



NERVOUS SYSTEM DISEASES

Scrapie. Bovine spongiform encephalopathy. Ceurosis.

DISEASES OF THE HEMOLYMPHATIC SYSTEM AND IMMUNE SYSTEM

Bovine leukosis. Caseous lymphadenitis. Anaplasmosis.
Piroplasmosis (babesiosis and theileriosis)

Organization of the practical activities:

	Content	Place	Hours
PR1.	LABORATORY DIAGNOSIS	Laboratory	15,00
PR2.	CLINICAL EXAMINATION AND SAMPLING	Farm	4,00
PR3.	NECROPSY TECHNIQUE	Hospital	4,00
PR4.	RUMINANT SURGERY	Hospital	3,00
PR5.	RUMINANT SANITATION	Field visit	4,00



Temporary organization of learning:

Block of content	Number of sessions	Hours
GENERAL ISSUES	6,00	12,00
RESPIRATORY DISEASES	13,00	26,00
GASTROINTESTINAL DISEASES	2,00	4,00
RENAL AND URINARY DISEASES	5,00	10,00
REPRODUCTIVE DISORDERS	4,00	8,00
DISEASES OF THE MAMMARY GLAND	7,50	15,00
SYSTEMIC DISEASES	2,00	4,00
NERVOUS SYSTEM DISEASES	4,00	8,00
DISEASES OF THE HEMOLYMPHATIC SYSTEM AND IMMUNE SYSTEM	4,00	8,00



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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:

☒ 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:

☒ Microsoft Teams

☐ Kaltura

Explanation about the practical sessions:

In case of not being able to carry out the laboratory work, theoretical seminars will be held and the percentage awarded will be 25%, corresponding to the addition of the part of "Evaluation of practical work in the laboratory" together with that of "Evaluation of practical work in clinic"



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

ONSITE WORK

Regarding the Assessment Tools:

☒ 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

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

Comments to the Assessment System: