



### ACADEMIC YEAR 2023/2024

General information			
Academic subject	VETERINARY CLINICAL MEDICINE		
Degree course	VETERINARY MEDICINE		
Academic Year	V		
Integrative Modules	Clinical Medicine;		
	Diagnostic Imagining;		
	Therapy;		
	Veterinary Legal Medicine.		
ECTS	10 ECTS (lectures: 7 ECTS; practical activity: 3 ECTS)		
Language	Italian		
Academic calendar	II-III 7 week term		
Attendance	Compulsory		

Teacher	Email address	telefono		
Prof. Paola Paradies	paola.paradies@uniba.it	0805443847		
Dott. Floriana Gernone	floriana.gernone@uniba.it	0805443884		
Dott. Fabrizio Iarussi	fabrizio.iarussi@uniba.it	0805443889		
Department and address	Campus of Veterinary Medicine S.P.62 Casamassima km 3, Valenzano			
Virtual rooms	Teams platform			
Tutoring (time and day)	On appointment by mail			

Syllabus	
Learning Objectives	The aim of the course is to give the student a "problem solving" approach to clinical cases in different animal species. Students at the end of the course should be able to examine the animal, to create the list of clinical problems and decide a first diagnostic plan. Furthermore, they should be able to integrate instrumental and laboratory data with the problems arising from the clinical examination and formulate a differential diagnostic list useful for reaching a correct final diagnosis. Finally, they should be able to rationalize the prognosis and the course of the disease and choose the correct therapeutic approach. Students will be introduced to the basis of therapeutic protocols to be used in the most important medical diseases of animals, including dosages, routes of administration, therapeutic efficacy and side effects of the drugs used. Knowledge of the Civil, Criminal and Administrative Law regulations governing the Veterinary profession will be acquired along with fundamental concepts of insurance, forensic and legal aspects in veterinary medicine.
Course prerequisites	Pathology, Clinical-pathology, Parasitology and parasitic diseases, Infectious diseases.
Contents of the Teaching course	The module concerns Clinical Science of Companion Animals (including horses)
CLINICAL MEDICINE	Clinical methodology: approach to the patient of different animal species –
	presenting complaint, medical history, and clinical examination. From clinical signs to
teacher	the diagnosis through a problem-oriented approach. Clinical reasoning: formulation
Prof. Paola PARADIES	of the list of problems, the diagnostic plan, and the list of differential diagnoses.
	What is the right clinical approach for a specific patient and in a specific context?
Lectures	Recognition of the "urgency code".

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	3CFU	Clinical approach to the most common clinical problems. Disorders of specific organs
	39 hs	and systems.
		Small animals:
		Use of clinical algorithms. Approach to the patient with the most common clinical
		signs. Interpretation of laboratory alterations. Integration of clinical data with
		instrumental and laboratory data. Discussion of clinical cases. Emergencies in internal
		medicine
		In-denth seminars on small animal medicine specific tonics (endocrinology)
		Specific pathologies to be known: Urinary infections, feline lower urinary tract inflammation (UTI), hemolytic anemia, cholangitis-cholangiohepatitis, feline triaditis, feline hepatic lipidosis, hepatic insufficiency, portosystemic shunt, renal insufficiency, CKD, glomerulopathy, canine leishmaniasis, chronic intestinal disease (IBD, EPD), pancreatic insufficiency, pancreatitis, hemorrhagic gastroenterocolitis, lymphoma in dogs and cats, feline upper respiratory infections, canine chronic bronchitis, feline
		asthma, pneumonia, heart failure, canine congenital and acquired heart disease,
		feline myocardiopathies, atrial fibrillation.
		Equines:
		Approach to the colic horse. Approach to coughing, respiratory stress, weight loss,
		anemia, poor performance, ventral edema, diarrhea, dysphagia. Specific pathologies
		to be known esophagus and stomach diseases, colic, chronic diarrhea, asthma,
		rhythm disturbances, laminitis, myositis, tick borne diseases.
		Clinical sciences of food producing animals
		Clinical approach at an individual and population level.
		Clinical examination. Clinical signs and diagnostic approach of the most common
		diseases of cattle (milk fever and downer cow syndrome, calf's diarrhea, respiratory
		diseases of calves, reticulum-peritonitis and pericarditis, ketosis and ruminal acidosis,
		abosamal dislocation / abomasal ulcer, foot pathologies, mastitis, bowel hemorrhagic
		syndrome, tick borne diseases). Population medicine in the zootechnical context in
		veterinary practice.
	Practical activity	
	1 ECTS	Clinical examination of different species, discussion of clinical cases referring to the
	20 h	Veterinary Teaching Hospital (students in small groups) with a problem-solving
		approach.
	Contents of the Teaching	The module concerns Clinical Science of Companion Animals (including horses)
	module	
		Interpretation of radiographic images: from normal to pathological findings.
	DIAGNOSTIC IMAGINING	Clinical applications of ultrasounds in small animals and horses. Role, technique, and
	Teacher	interpretation of the ultrasonographic examination. Physical principles of ultrasounds
		and interaction of ultrasound with tissues. Transducers and main ultrasound
	Prof. Paola PARADIES	regulation systems. Abdominal ultrasound anatomy and semeiotics. Orientation of
		images, interpretation, and terminology. Ultrasound artifacts. Interpretation of
ļ	Lectures	common abdominal pathological pictures.
	1ECTS	Echocardiography in small animals and horses: basis for a standard examination.
ļ	13hs	Representation of the echoes: B-mode, M-mode, doppler.
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ļ	Practical activity	Interpretation of radiographic and ultrasonographic studies of real clinical cases from
ļ	1ECTS	the Veterinary Teaching Hospital. How to perform a basic ultrasound examination in
ļ	20 h	dogs, cats and horses (in groups)
ļ	Contents of the Teaching	The module concerns Clinical Science of Companion Animals (including horses) and
ļ	module	food-producing animals

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# Dipartimento di Medicina Veterinaria



THERAPY Teacher Dott. Floriana GERNONE Lectures 1ECTS 13 h Practical activity 1 ECTS 15h	Fluid therapy. Treatment of hypovolemic shock. Correction of electrolytic imbalances. Diuretic therapy. Anti-inflammatory treatment. Antiepileptic therapy. Treatment of the main cardiovascular, respiratory, gastro-enteric, and dermatological diseases. Treatment of urinary disorders. Antimicrobial, antifungal, and antiparasitic therapy. Treatment of vector-borne diseases. Treatment of neoplastic diseases. Management of endocrinopathies. Treatment of immunomediated diseases. Students divided in groups will discuss therapeutic aspects of clinical cases referring to the Veterinary Teaching Hospital.			
Contents of the Teaching module VETERINARY LEGAL MEDICINE Teacher Dott. Fabrizio IARUSSI lectures 2ECTS 26 h	<ul> <li>National Federation of Veterinary Orders: FNOVI</li> <li>National Pension and Assistance Board for Veterinarians: ENPAV</li> <li>CME training program</li> <li>Professional outlets</li> <li>Professional responsibility of the veterinarian</li> <li>Code of ethics and disciplinary sanctions</li> <li>Prescription and possession of Veterinary drugs</li> <li>Animal Welfare: Regulations.</li> <li>Buying and selling examination and determination of defects</li> <li>Official inspections of hereditary diseases</li> <li>Office and party counseling in litigation</li> <li>Straying.</li> <li>Contingent and urgent ordinance concerning the protection of public safety from dog aggression (G.U209/2013)</li> <li>Canine Registry</li> <li>Identification and registration of farm animals</li> <li>Animal Experimentation: Regulations.</li> </ul>			
Biosecurity during practise	Access to the clinics and laboratories of the Veterinary Hospital is allowed only to students equipped with protective clothing (gowns and disposable latex gloves), who have read the biosafety manual			
Books and bibliography for personal study	<ul> <li>-Nelson RW, Couto CG - Medicina Interna del Cane e del Gatto, Elsevier, Milano, ultima edizione; -Manuale di Clinica del Cavallo 2/ed. di ROSE RJ.; HODGSON DR.;</li> <li>Antonio Delfino Editore, 2005; -Bovine di latte. Le malattie della produzione.</li> <li>Manuale per la prevenzione e il controllo, Zecconi, Fantini, 2014, L'informatore agrario Ed.</li> <li>Radiografia del cane e del gatto. Gracia Real. EV.</li> <li>Esame di base dell'addome nel cane e nel gatto. Faverzani, Lodi, Barella (Quaderni)</li> <li>Ruffo G. Legislazione Veterinaria. Poletto Editore, 2003</li> <li>Chiti-Batelli A. Sperimentazione Animale: problema europeo. CEDAM Eds, 2005</li> </ul>			
Additional materials	Material from teachers, individual lecture notes			

Work schedule				
Total	Lectures	Hands on (Laboratory, working groups, seminars,	Out-of-class	study





			field trips)	hours/	Self-study
				hours	
Hours	01		60	00	
FCTS	91		00	33	
10	7		3		
ECTS 10 7 Teaching strategy		Frontal te learning p Part of the videos sel to introdu The pract animal Cli direct con discussion into group laboratory scans and pathologic therapeut	3 eaching, interdisciplinarity, role playing, laboratory latforms, practices. e courses is carried out in the classroom using power ected by the teachers. Clinical cases selected from th ce and explain the "problem solving approach and to ical lessons (students divided into groups) are car nics or in the large animal examination room and tact with patients; alternatively, students will be as o on archival clinical cases. In particular, during prac ps will be invited to solve clinical questions through to tests and radiographic tests with final discussion, t to interpret the X-ray or ultrasound images through cal findings and their differential diagnosis, to choose ical approach.	teaching, r points integ e teacher w o discuss clir ried out in are aimed ked to the ctice, studer the interpri- the descrip and motiva	nultimedia grated with vill be used nical cases. the small to allow a interactive nts divided retation of ultrasound tion of the te the best
Expected learning	g outcomes				
Knowledge and understanding on:		Interpreta "Problem Role of co Appropria Algorithm Correct m patient. Knowledg Applied ar Radiograp Veterinary Technical Drug Surv	tion of clinical signs and associated pathologies. solving" approach. Ilateral tests te scientific language s and differential diagnosis of the most common clinic ethodological approach to setting up the most suitabl e of the ultrasound equipment. hatomy and semeiotics. hic and ultrasonographic signs of the main pathologie practice consultations and expert witness work eillance System	cal signs le treatment es of clinical	t for the interest
Applying knowledge and understanding on:		To reach different diagnoses correct m disease. Skills in in radiograp pathologia radiograp an animal redhibitor of breed t	clinical problem-solving skills, being able to carry ou animal species, to formulate a diagnostic plan and to appropriately communicate with owners and co bethodology in the choice of therapeutic manager terpreting radiographic and ultrasonographic studies, hic and ultrasound signs of the main intrathoracic and es of small animals, ability to draw up a report; ability hic and ultrasound differential diagnoses. Furthermor buying and selling examination by detecting the press y defects; draft veterinary medical-legal certificates (f ypicality, etc.), to produce a Veterinary Electronic Pre	at the clinic d a list of o olleagues, to nent of the ability to re l abdominal to create a e, ability to ence of any Referrals, Ce scription, ar	al exam in differential learn the patient's cognize list of perform ertificates and know





	the National Pharmaco-surveillance Information System and ability. At the end of the course the student is expected to acquire the following Day One Competences adopted by ECCVT: 1.4, 1.5, 1.8, 1.9, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.23
Soft skills	<ul> <li>Making informed judgments and choices to solve a clinical case on a single animal or to solve farm clinical problems, to approach diseased patients, to formulate a diagnostic and therapeutic plan.</li> <li>Communicating knowledge and understanding The student will be asked to learn a correct technical medical language.</li> <li>Capacities to continue learning. Students will learn how to approach a clinical problem using the POA method (Problem oriented approach) and algorithms and how to differentiate their clinical the approach based on the working context. The acquired clinical problem-solving skills will give them the basis to further study and approach to any clinical specialistic path of the veterinary medicine. The therapeutic protocols learned during the course coupled with the continuing education will be used in the professional field Ability to independently learn and investigate topics of professional interest.</li> <li>The Day One Competency adopted by ECCVT 2.1, 2.5, 2.11 are expected to be acquired.</li> </ul>
Summary of the EAEVE Day One Competence	1.4, 1.5, 1.8, 1.9, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.23, 2.1, 2.5, 2.11

Assessment and feedback		
Methods of assessment	Clinical Medicine: preliminary practical test (clinical examination of an animal species to be performed before the oral exam on topics in the program. In both tests the student must demonstrate the skills acquired during the practical exercises, the ability to make a clinical problem-solving approach by formulating a diagnostic process and a list of differential diagnoses. They also need to demonstrate good knowledge of medical terminology. Diagnostic Imaging: in itinerant tests of self-evaluation; final oral exam with evaluation of the knowledge of basic concepts of ultrasonography and interpretation of radiographic studies and ultrasound pictures. Therapy and Veterinary Legal Medicine: an oral examination on topics related to the course program	
Evaluation criteria	<ul> <li>Knowledge and understanding         To perform a complete clinical examination         To approach a clinical case with a medical problem-solving approach         To know the clinical and diagnostic aspects and the time course of some common diseases         To know basic concept of ultrasound         To know therapeutic protocols         Applying knowledge and understanding         To recognize and describe symptoms, to create a diagnostic plan, to describe a clinical case to interpret radiographic and Eco-graphic pictures. To use therapies     </li> </ul>	





	appropriate to the individual cases. To solve critical issues in simulations of different		
	work scenarios		
	Work scenarios		
	Autonomy of judgment		
	To evaluate a clinical case or to critically approach a diagnostic and therapeutic		
	plan.		
	Ability to analyze and make a critical sense of the topics studied Ability to		
	comprehensively and unified evaluation of the most common legal disputes		
	encountered in the veterinary field.		
	<ul> <li>Communicating knowledge and understanding</li> </ul>		
	To explain and discuss with appropriate terminology.		
	Communication skills		
	To communicate clearly		
	Capacities to continue learning.		
	To adapt skills and knowledge to new clinical scenarios		
Criteria for assessment and	The evaluation is reported in $/30$ . To pass the examination an evaluation > or = $18/30$		
attribution of the final mark	is asked. For the Clinical Medicine Module to access the oral examination the		
	students need to pass the practical test that is evaluated as idoneity. The inter-		
	course self-assessment tests do not affect the final examinant way		
	The final mark is the result of a collegial evaluation of the partial evaminations		
	the final mark is the result of a conegral evaluation of the partial examinations,		
	during which the student must demonstrate to have acquired critical sense with		
	respect to the topics of the course.		
Additional information			