

General information	
Academic subject	VETERINARY CLINICAL MEDICINE
Degree course	VETERINARY MEDICINE
Academic Year	2021/2022
European Credit Transfer and Accumulation System (ECTS)	4
Language	italian
Academic calendar (starting and ending date)	II – III Bimester
Attendance	Mandatory

Professor/ Lecturer	
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Department and address	Veterinary Medicine Campus – Valenzano (BA)
Virtual headquarters	Teams code: nzchttj
Tutoring (time and day)	Monday-Friday h 15-18

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 visit 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 visit 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.
Course prerequisites	Pathology, Clinical-pathology, Parasitology and parasitic diseases, Infectious diseases.
Contents	<p>Course program CLINICAL SCIENCE OF COMPANION ANIMALS (including horses)</p> <p>Clinical methodology: approach to the patient of different animal species – presenting complaint, medical history and clinical examination. From clinical sign to the diagnosis through a problem-oriented approach. Clinical reasoning: formulation 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? Clinical approach to the commonest clinical problems. Disorders of specific organs and systems.</p> <p>Small animals: Use of clinical algorithms. Approach to the patient with: - pale mucous membranes, - vomiting, - diarrhea, - anorexia, - polyuria / polydipsia, - urination disorders, - cough, - dyspnea, - jaundice, - ascites, – weight loss, - fever, - seizures, -pruritus, - alopecia, otitis, nodular dermatitis, heart murmur, epistaxis, serum protein gammopathy. Recognition of the "urgency code". Interpretation of laboratory alterations. Integration of clinical data with instrumental and laboratory data. Non-invasive clinical-interventional procedures and diagnostic techniques. Discussion of clinical cases.</p>

	<p>Emergencies in internal medicine (Shock, diabetic ketoacidosis, Addisonian crisis, hemolytic anemia, hypoglycemic crisis, chest effusion, cardiac tamponade, severe arrhythmias, cardiogenic pulmonary edema, hepatic encephalopathy, gastric dilation / torsion, urethral obstruction, acute abdomen, rodenticides and other poisonings). In-depth seminars on small animal medicine specific topics (endocrinology, cardiology): hyperadrenocorticism, hypoadrenocism , diabetes mellitus, canine hypothyroidism, feline hyperthyroidism.</p> <p>Mitral valve degenerative disease, dilated cardiomyopathy, atrial fibrillation, left and right heart failure, feline myocardopathies, congenital heart diseases.</p> <p>Specific pathologies to be known: Urinary infections, feline lower urinary tract inflammation (UTI), haemolytic 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, haemorrhagic gastroenterocolitis, lymphoma in dogs and cats, , feline upper respiratory infections, canine chronic bronchitis, feline asthma, pneumonia.</p> <p>Horses: Approach to the colic horse. Approach to coughing, respiratory stress, weight loss, anemia, decreased performance, edema, diarrhea, dysphagia. Specific pathologies to be known: esophagus and stomach diseases, colics, chronic diarrhea, asthma, rhythm disturbances, laminitis, myositis, piroplasmosis.</p> <p>CLINICAL SCIENCES OF FARM 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, calves diarrhea, respiratory diseases of calves, reticulum-peritonitis and pericarditis, chetosis and ruminal acidosis, abomasal dislocation / abomasal ulcer, foot pathologies, mastitis, bowel hemorrhagic syndrome, tick borne diseases). Population medicine in the zotechnical context in veterinary practice.</p>
Books and bibliography	<p>-Ettinger SJ, Feldman EC - Clinica Medica veterinaria. Malattie del cane e del gatto, Elsevier-Masson, Milano, ultima edizione;</p> <p>-Nelson RW, Couto CG - Medicina Interna del Cane e del Gatto, Elsevier, Milano, ultima edizione;</p> <p>-Cardiologia del cane del gatto e del cavallo, Porciello F., Poletto Ed., 2010</p> <p>-Reed and Bayly- Equine internal medicine, Saunders Ed.;</p> <p>-Manuale di Clinica del Cavallo 2/ed. di ROSE RJ.; HODGSON DR.; Antonio Delfino Editore, 2005</p> <p>-Smith -Large animal internal medicine, Mosby Ed., ultima edizione</p> <p>-Dirksen G, Gründer HD, Stöber M (2004). Medicina interna e chirurgia del bovino. Le point Vétérinaire Italie, Milano;</p> <p>-Bovine di latte. Le malattie della produzione. Manuale per la prevenzione e il controllo, Zecconi, Fantini, 2014, L'informatore agrario Ed.</p>
Additional materials	Material from teacher, individual lecture notes

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study

			hours
Hours			
100	39	25	36
ECTS			
4	3	1	
Teaching strategy	<p>Part of the course is carried out in the classroom using power points integrated with videos selected by the teacher. Clinical cases selected from the teacher will be used to introduce and explain the “problem solving approach. The practical lessons are carried out in the small animal Clinics or in the large animal examination room and are aimed to allow a direct contact with patients; alternatively students will be asked to the interactive discussion on archival clinical cases. In particular, during practice, students divided into groups will be invited to solve clinical questions through the interpretation of laboratory tests and radiographic tests with final discussion. Some exercises could be carried out in a kennel or dog breeding outside the university. During the teaching activity, full-time seminars will be held on specific topics (i.e. endocrinology, cardiology, other). Clinical cases presented by the teacher or by volunteer students (according to the inverted lesson method) will be discussed.</p>		
Expected learning outcomes			
Knowledge and understanding on:	<p>Knowledge and interpretation of clinical signs and associated pathologies. Knowledge on the “problem solving” approach Understanding on the role of collateral tests Knowledge of an appropriate scientific language Knowledge of algorithms and differential diagnosis of the most common clinical signs</p>		
Applying knowledge and understanding on:	<p>To reach clinical problem-solving skills, being able to carry out the clinical examination in different animal species, to formulate a diagnostic plan and a list of differential diagnoses, to appropriately communicate with owners and colleagues.</p> <p>At the end of the course the student is expected to acquire the following Day One Competences adopted by ECCVT: 1.4, 1.5, 1.9, 1.14, 1.15, 1.16, 1.17</p>		
Soft skills	<ul style="list-style-type: none"> • 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. • Communicating knowledge and understanding <p>The student will be asked to learn a correct technical medical language</p> <ul style="list-style-type: none"> • Capacities to continue learning <p>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.</p> <p>The Day One Competency adopted by ECCVT 2.1, 2.5, 2.11 are expected to be acquired</p>		

Assessment and feedback	
Methods of assessment	<p>The assessment of knowledge takes place through a practical preparatory test (clinical examination of an animal species, discussion of a clinical case afferent in the clinic) and an oral exam on topics in the program (approach to a clinical sign, differential diagnosis, knowledge of specific pathologies/ emergencies). Exercises as those proposed during practical lessons (interpretation of laboratory and collateral tests) will be also proposed.</p> <p>In both tests the student must demonstrate the skills acquired during the practical exercises, the knowledge and interpretation of clinical signs and associated pathologies and 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.</p>
Evaluation criteria	<ul style="list-style-type: none"> • 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 • Applying knowledge and understanding To recognize and describe symptoms, to create a diagnostic plan, to describe a clinical case • Autonomy of judgment To evaluate a clinical case or to critically approach a diagnostic plan • Communicating knowledge and understanding 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 attribution of the final mark	<p>The evaluation is reported in /30. To pass the examination an evaluation > or = 18/30 is asked. The 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 exam in any way.</p> <p>The evaluation acquired in the Module "Veterinary Clinical Medicine" (4/10), together with that acquired in "Legal Veterinary Medicine" (2/10), Diagnostic Imaging (2/10) and "Therapy" (2/10) will contribute to the determination of the final vote of the integrated examination of "Veterinary Clinical Medicine".</p> <p>Students can take the four Exam Modules together or separately in no more then two different partial sessions within a maximum period of six months as follow:</p>
Additional information	<p>Clinical Medicine and Therapy need to be taken in the same session. Diagnostic Imaging need to be taken before or in the same session of Clinical Medicine and Therapy.</p>