

Course: Equine Internal Medicine and Therapy
(2 CFU; 51 hours; lectures: 15 hours; Practical activities 8 [x4] 32 hours + +2[x2])

Learning outcomes: The course is aimed at providing the students the knowledge and skills to appropriately accomplish clinical procedures and clinicopathological methods and to critically elaborate the obtained information for carrying out an accurate diagnosis or a complete differential list of diagnosis of horse disease susceptible of medical treatment. Additionally, the students will be able to choose an effective treatment for the diagnosed disorders.

Lectures

Themes and learning outcomes	Topics	Specific contents	hours
Course presentation		The introduction is aimed at illustrating the learning objective, the organization, and the assessment methods. Also, the problem-oriented approach will be summed up	1
<p>1. PROBLEM-ORIENTED APPROACH OF THE MOST COMMON COMPLAINTS IN HORSES (11&1/2 HOURS)</p> <p>Gaining of:</p> <p>a) Knowledge of how to approach the most common presenting problems including the the differential diagnosis and diagnostic workup</p> <p>b) Knowledge of the treatments with evidence-based support for the most common diseases of equids</p>	Respiratory system	Clinical case of severe asthma and malabsorption Clinical case of cough and poor performance. The therapy of severe asthma. The therapy of malabsorption	2
	Cardiovascular system	Clinical case of poor performance and arrhythmia Approach to arrhythmias in horse L'EOP Approach to heart murmurs in horse.	2
	Hematopoietic system	Clinical case of piroplasmosis and anaplasmosis Caso clinico di piroplasmosi e anaplasmosi Hematologic disorders of horse Approach to anaemias in horse CBC and acute phase proteins interpretation in horses	2
	Endocrine system	Clinical case of equine Cushing's Differential diagnosis of pu/pd Metabolic syndrome in horse	1
	Nervous system	Clinical case of encephalomyelitis due to Herpevirus infection Gait abnormalities in horses; differential diagnosis	1
	Muscular system	Clinical case of tying up syndrome Differential diagnosis of myopathies	1/2

	Gastrointestinal system	Clinical case of antibiotic induced acute enterocolitis. Acute and chronic enteropathies in horses Malabsorption syndromes Therapies of enterocolitis Practical fluidotherapy Practical antibiotic therapy and AMR	2
<p>2. PREVENTIVE MEDICINE (TOT. 2 ½ HOURS)</p> <p>Gaining of: a) Knowledge of the principles of preventive medicine b) Knowledge of vaccination schemes for horses c) Knowledge of deworming schemes and innovative protocols to limit anthelmintic resistance. d) Knowledge of the hereditary disorders of horse</p>	Vaccination in equids	Clinical case of tetanus Vaccinations in equine preventive medicine. Vaccinal schemes for racehorses competing in FEI/FISE and jockey club races.	1
	Anthelmintic treatments in equids	Traditional and innovative approaches in the management of anthelmintic treatments	1/2
	Clinical genetics in horses	Clinical case of Overo White Lethal syndrome. Horses' hereditary diseases	1
Practicals			
Themes and learning outcomes	Topics	Specific contents	hours
<p>Gaining of: a) Knowledge of the legislation in force concerning the prescription and use of medicinal product in equids. b) To be able to issue an electronic prescription. c) Knowledge of the duties concerning the prescription and use of medicinal products in equids.</p>	National informative system and electronic prescriptions.	Methods for the identification of equidae (Equine Passport Regulation). Food-producing animals and non-food producing animals. Legislation in force on the veterinary prescription and use. The electronic prescription and the National Informative system. Problem solving: Practicals in small groups. Groups are challenged with simulated real settings. The groups are requested to work in a collaborative way to cope the situation by choosing the correct medicinal product, and by issuing a prescription and use and record keeping by means of the electronic prescription.	2
<p>Gaining of a) to be able to restraint and perform the physical examination in horse</p>	Respiratory system Physical examination	The practical training sessions are carried out in small groups. Students are required to get close to restraint and to carry out a physical examination in different horses. Finally, all students together attend the procedures to collect BALF in a horse.	2

<p><i>b) To be able to interpret the signs and to build up a correct differential diagnosis</i></p>	<p>Cardiovascular system Physical examination</p>	<p>The practical training sessions are carried out in small groups. Students are required to get close to restraint and to carry out a physical examination in different horses and to carry out an ECG examination in a horse.</p>	<p>2</p>
<p>Gaining of <i>a) Knowledge of the procedures of clinical pathology</i> <i>b) To be able to carry out clinical pathology procedures</i> <i>c) To be able to interpret the findings of clinical pathology procedures</i></p>	<p>Laboratory of clinical pathology: cytology of BALF and transusion crossmatching</p>	<p>Hands-on work carried out in teaching laboratories. The tasks are carried out in small groups. BALF collected from cases visited during the previous practical lessons were used to prepare unstained smears in advance. Unstained smears are stained by students and examined. Interpretative protocols are provided, and students are requested to apply the interpretative protocols. Transfusion medicine: blood samples are used to carry out crossmatching.</p>	<p>2</p>
	<p>AUDIOLAB laboratory</p>	<p>This activity is carried out in the Clinical Skill Lab. Basically, many heart and respiratory sounds track recorded in field either normal or pathological are listened and commented under the supervision of the teacher.</p>	<p>2</p>