

# Professional Master's Degree Equine Hospital Medicine





## Professional Master's Degree Equine Hospital Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/pk/veterinary-medicine/professional-master-degree/master-equine-hospital-medicine](http://www.techtitute.com/pk/veterinary-medicine/professional-master-degree/master-equine-hospital-medicine)

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# 01

# Introduction

Equine hospitalization involves a wide range of interventions aimed at achieving the best possible prognosis of the patient and the best possible wellbeing indexes. To achieve this, professionals need to master all aspects of the process of hospitalization and know the guidelines and protocols to be followed in each case, including admission, treatment measures and hospitalization of the sick animal.





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*A program designed to meet the specialization and refresher needs of professionals in the sector, with a high quality intensive course that covers each and every one of the areas of intervention in Equine Hospital Medicine"*

Equine hospitalization requires extensive in-depth knowledge in order to understand how to intervene in the pathologies that affect quadrupeds. Equine hospitalization encompasses many pathologies, so a veterinary professional must update their knowledge to be aware of the latest developments.

The program will cover the foundations for specialization in equine hospital medicine, which define the logistics and clinical strategy needed in any hospital for horses. We will also delve into digestive disorders, which can present themselves with varied symptoms and evolution, and can represent a real challenge in terms of stabilization and treatment of the patient. In addition, we will address cardiac diseases in horses, which are relatively rare in relation to the pathologies they suffer.

The program will also analyze the respiratory system, neurological and muscular problems, neonatology, pathologies of the genitourinary system, endocrine problems, ophthalmic pathologies, parasitic diseases in horses and pathologies or diseases that vary according to age. To conclude this Professional Master's Degree, hospital care of the surgical patient will be addressed, a fundamental part in the successful outcome of the surgical procedure performed when it has been carried out electively.

It is a 100% online program, without any face to face classes or pre-established schedules, which allows veterinary professionals to organize their time and schedule sessions whenever they wish from any mobile device with an Internet connection. In addition, the professional will be able to download all the academic content and study it as they wish, emphasizing specific topics and resolving doubts and concerns with a team of first class teaching staff.

This **Professional Master's Degree in Equine Hospital Medicine** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The latest technology in online teaching software
- ◆ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ◆ Practical cases presented by practising experts
- ◆ State-of-the-art interactive video systems
- ◆ Teaching supported by telepractice
- ◆ Continuous updating and recycling systems
- ◆ Autonomous learning: full compatibility with other occupations
- ◆ Practical exercises for self evaluation and learning verification
- ◆ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ◆ Communication with the teacher and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection
- ◆ Supplementary documentation databases are permanently available, even after the course



*Join the elite, with this highly effective program and open new paths to help you progress in your professional career"*

“ *This comprehensive program has been created as an intensive route to specialization and refreshment that will allow the professional to boost their skills to the highest levels in this field*”

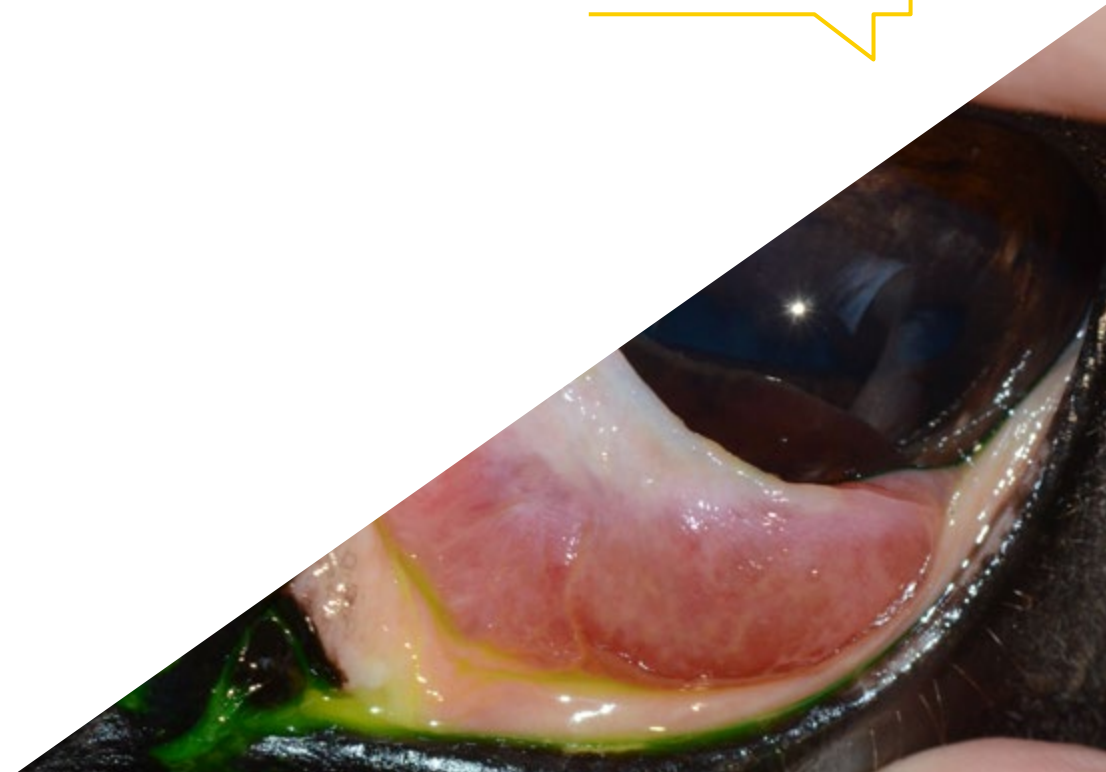
TECH's teaching staff is made up of professionals from different fields related to this specialty. Therefore, TECH ensures that it delivers the refreshment objective intended. A multidisciplinary team of professionals who are prepared and experienced in different settings will develop the theoretical knowledge in an efficient manner, but, above all, will provide the student with practical knowledge based on their own experience: one of the differential qualities of this program.

This mastery of the subject matter is complemented by the effectiveness of the methodological design. Developed by a multidisciplinary team of e-Learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the effectiveness you need in your specialization.

The design of this program is based on Problem-Based Learning: an approach that views learning as a highly practical process. To achieve this remotely, telepractice will be used: with the help of an innovative interactive video system and Learning from an Expert, students will be able to acquire the knowledge as if they were facing the scenario they are learning at that moment. A concept that will make it possible to integrate and fix learning in a more realistic and permanent way.

*With the experience of working professionals and the analysis of real success stories, in a high impact training.*

*With a methodological design based on proven teaching techniques, this innovative program will take you through different teaching approaches to allow you to learn in a dynamic and effective way.*

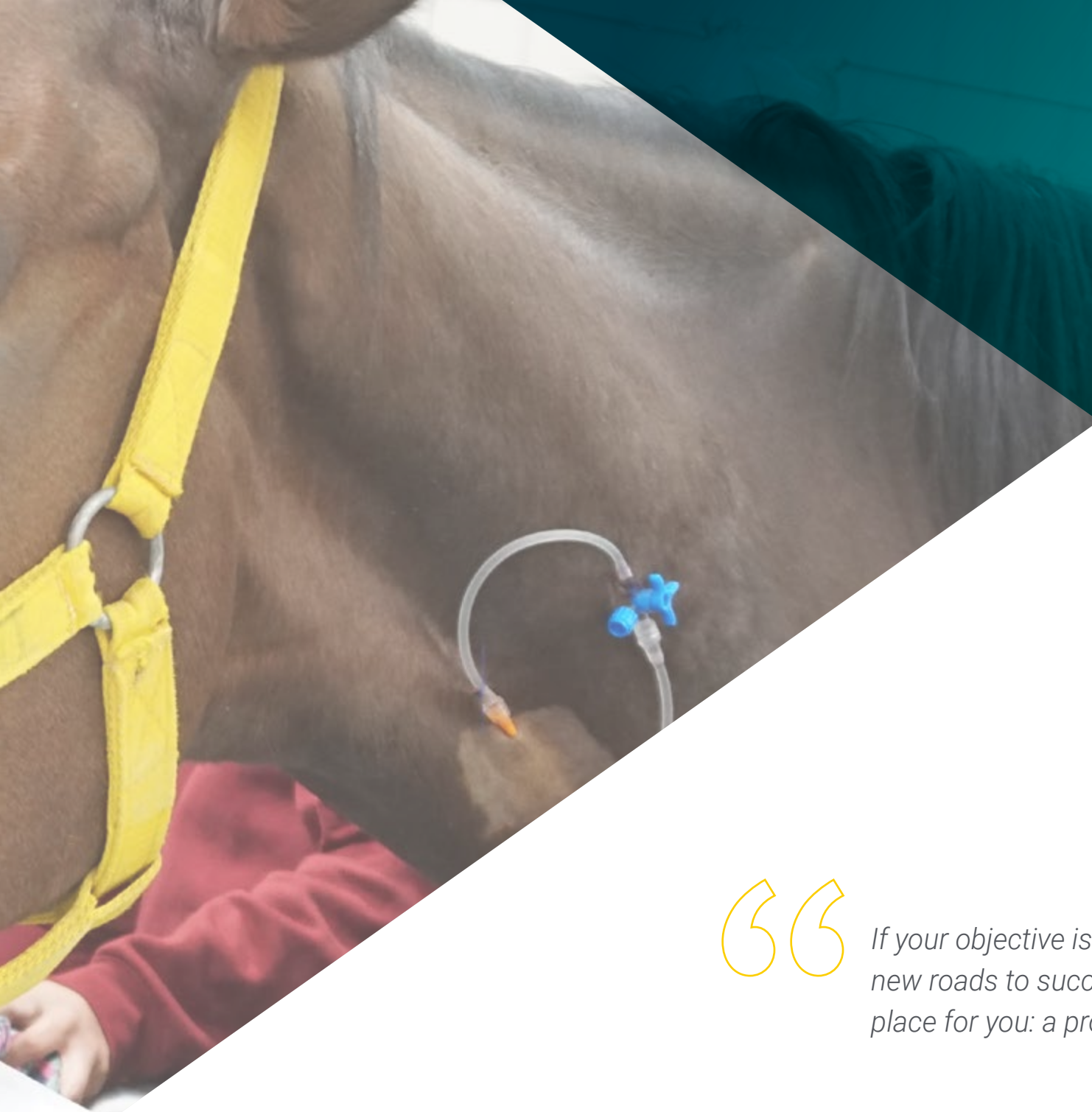


# 02 Objectives

The objective is to help professionals access a much higher level of competence and control. A goal that, in just a few months, can be achieved with high intensity and effective instruction.







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*If your objective is to broaden your skillset to open up new roads to success and development, this is the place for you: a program that aspires to excellence”*



## General Objectives

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- ♦ Organize and design an equine hospital for optimal clinical and logistical performance for patients of varying severity
- ♦ Offer specialized knowledge on hospital pharmacology in detail, so that an equine hospital is properly equipped with the necessary medication for medical therapies for common pathologies, and ICU, resuscitation, and supportive care therapies
- ♦ Establish fluid therapy, plasma therapy, and nutrition of hospitalized patients
- ♦ Delve into the most common pathologies of the hematopoietic and immune systems that may appear or develop in a hospital during the course of other primary pathologies
- ♦ Examine analytical interpretation: blood count, serum biochemistry and blood gas analysis
- ♦ Expand knowledge of diseases affecting the digestive tract from the stomach to the rectum, assessing the stage of the different presentations and further understanding the needs for critical care
- ♦ Teach the doctor how to correctly assess the animal's systemic state and the consequent severity of the pathology, as well as the tools available for its monitoring
- ♦ Establish digestive and hepatic diagnostic protocols with the objective of generating optimized treatments and prognoses
- ♦ Develop a global understanding of endotoxemia in horses and therapeutic measures aimed at its clinical management
- ♦ Expand knowledge of the pathophysiological mechanism of laminitis caused by endotoxemia and a carbohydrate overload
- ♦ Generate specialized knowledge in enteral and parenteral nutrition available to the hospitalized patient
- ♦ Establish an appropriate methodology for examination of horses with heart disease
- ♦ Identify all clinical signs associated with cardiovascular disease and determine clinical relevance
- ♦ Determine the specific clinical approach to horses with a cardiovascular condition
- ♦ Generate specialized knowledge on the management of critical horses complicated by cardiovascular problems
- ♦ Interpret the clinical signs shown by patients with respiratory conditions and learn to classify them according to their clinical relevance
- ♦ Establish a protocol of specific diagnostic tests and further understand their interpretation to establish the exact location and severity of pathologies
- ♦ Analyze the advantages of diagnostic methods that can be performed in hospitals as opposed to field clinics
- ♦ Present the latest advances in the treatment of both upper and lower airway pathologies
- ♦ Compile guidelines for management, monitoring and treatment of hospitalized respiratory patients
- ♦ Review the detailed neurological examination procedure to ensure anatomical localization of injuries.
- ♦ Compile diagnostic methods specific to the neurological system
- ♦ Provide the basis for the evaluation, monitoring and treatment of hospitalized neurological patients
- ♦ Describe the diagnosis and treatment of the main neurological pathologies most commonly seen in hospitalized horses
- ♦ Describe the diagnosis and treatment of the main muscular pathologies that can be observed in hospitalized horses

- ♦ Analyze and understand, according to organ systems, all the differences between neonates and adult equids
- ♦ Establish a methodology to identify all clinical signs associated with neonatal pathology and existing diagnostic methods
- ♦ Learn how to treat and evaluate the severity of pathologies in the neonate, in order to establish the precise monitoring methods in the hospital, as well as the prognosis
- ♦ Be familiar with all methods of stabilization and supportive therapy during established hospital treatments
- ♦ Establish an appropriate methodology to evaluate genitourinary problems in equids
- ♦ Identify all clinical signs associated with the urinary system, their severity and chronicity
- ♦ Review all diagnostic methods used in the evaluation of the genitourinary system
- ♦ Generate specialized knowledge on how to treat and evaluate the severity of urinary system pathologies, combining clinical signs with the interpretation of specific diagnostic tests
- ♦ Be familiar with the most frequent endocrine disorders in equine patients
- ♦ Differentiate the existing diagnostic methods for the most common endocrine pathologies, addressing the fact that some of these methods are dynamic and require hospitalization for serial sampling
- ♦ Provide an in depth knowledge of the most common dermatological problems
- ♦ Identify all clinical signs associated with each dermatological disease
- ♦ Establish the specific clinical approach for each pathology and determine the prognosis and the most appropriate treatment for each skin disease
- ♦ Determine the main causes of intoxication and their involvement in different systems
- ♦ Establish an appropriate approach and methodology for ophthalmologic evaluation
- ♦ Identify the clinical signs of ocular pathologies
- ♦ Provide an in depth knowledge of parasitosis in equids
- ♦ Differentiate a clinical approach in the geriatric patient and in donkeys
- ♦ Generate specialized knowledge of the correct diagnosis, treatment and management of infectious and/or notifiable diseases
- ♦ Develop specialized knowledge of the hospital care of the different surgical patients studied
- ♦ Determine the applied surgical techniques and diagnostic imaging techniques for the treatment of inpatient emergencies
- ♦ Establish medical treatment and post-surgical protocols for each hospitalized equine patient depending on the pathology
- ♦ Identify complications during the evolution of equine patients and provide appropriate therapies for them



*A path to achieve specialization and professional growth that will propel you towards a greater level of competitiveness in the employment market"*



## Specific Objectives

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### Module 1. Introduction to Hospital Medicine

- ♦ Examine, in detail, the facilities required in an equine hospital
- ♦ Define the protocols for action and disinfection in an equine hospital
- ♦ Establish guidelines to be followed for infectious animals, as well as the different protocols depending on the degree of infection
- ♦ Develop specific pharmacological guidelines and protocols according to the most frequent pathologies in equines
- ♦ Establish multimodal analgesia protocols in equids and how to establish pain monitoring in the equine patient
- ♦ Classify patients according to their severity when they are hospitalized
- ♦ Analyze appropriate maintenance therapies in most hospitalized patients, with emphasis on fluid therapy and water and electrolyte imbalances that may arise during the course of these therapies
- ♦ Maintain the correct metabolic status of patients through nutritional control, according to their circumstances
- ♦ Develop the pathologies of the hematopoietic and immune systems by developing existing diagnostic methods and appropriate therapies in each case
- ♦ Correctly interpret blood analysis, serum biochemistry and blood gases in all types of pathologies and the most common alterations in each of them

### Module 2. Digestive and Hepatic Problems in Hospitalized Patients

- ♦ Develop advanced general examination procedures, as well as diagnostic tests such as abdominocentesis, glucose absorption test, endoscopy, interpretation of analytical tests and diagnostic imaging
- ♦ Expand knowledge of critical care patient monitoring
- ♦ Generate knowledge on the most advanced lines of treatment for hospitalized patients with digestive pathology
- ♦ Examine, in depth, the infectious and parasitic diseases affecting the digestive tract, as well as their various treatments
- ♦ Teach the veterinarian how to prevent secondary complications derived from digestive pathology
- ♦ Identify clinical signs associated with endotoxemia and endotoxic shock in horses
- ♦ Cover the neoplastic diseases that affect the digestive tract, as well as their various treatments
- ♦ Cover equine liver and biliary tract diseases and their possible treatments
- ♦ Determine specific action protocols for patients with laminitis due to endotoxemia or carbohydrate overloading
- ♦ Establish protocols for enteral and parenteral feeding in hospitalized patients

### Module 3. Cardiac Pathologies in Hospitalized Patients

- ♦ Specify the information needed in the clinical examination of horses with heart disease
- ♦ Propose a diagnostic methodology for patients with a murmur or arrhythmias
- ♦ Delve into advanced critical patient monitoring techniques
- ♦ Identify cardiac disorders requiring emergency treatment
- ♦ Detail the action mechanisms of cardiovascular medication
- ♦ Establish cardiopulmonary resuscitation protocol
- ♦ Examine in depth all the most common pathologies in horses
- ♦ Identify cardiac complications in hospitalized horses in order to establish early treatment
- ♦ Establish the clinical management of the critically ill patient due to heart failure or shock
- ♦ Provide adequate management of vascular conditions

### Module 4. Respiratory Pathologies in Hospitalized Patients

- ♦ Specify the necessary and relevant information in the clinical examination of respiratory patients
- ♦ Develop in depth the complementary diagnostic methods available in a hospital and their clinical relevance
- ♦ Perform an updated review of upper tract pathologies, their diagnosis and treatment
- ♦ Develop the usefulness of bronchoalveolar lavage, tracheal aspirate and stress test in the evaluation of lower airway inflammation and its clinical implications
- ♦ Present an updated review of infectious diseases of the respiratory system and their treatment
- ♦ Provide guidelines for monitoring and treating respiratory patients in hospital
- ♦ Detail the procedures to be performed in the evaluation of a horse's sporting performance, associating them to their clinical relevance

### Module 5. Neurological and Muscular Problems in Hospitalized Patients

- ♦ Describe all the components of the diagnostic process in neurological diseases, from the pertinent anamnesis and injury localization to advanced imaging techniques
- ♦ Analyze available diagnostic techniques and discuss their uses and limitations
- ♦ Update new trends in the treatment of neurological horses, from common strategies to the management of decubitus horses
- ♦ Detail the characteristics and prevalence of the different neurological diseases and their differential diagnoses
- ♦ Describe all components of the diagnostic process, from physical examination to advanced pathological diagnostic techniques
- ♦ Detail exercise-related muscle diseases and establish appropriate medical treatments and management therapies
- ♦ Detail non-exercise related muscle diseases and establish appropriate medical treatments and management therapies

### **Module 6. Medical Pathologies and Hospitalization for Foals**

- ♦ Learn about neonatal care and stabilization, as well as minimum supportive care
- ♦ Understand all the differences between adult and newborn equids in the gastric, respiratory, endocrine, muscular, neurological and ophthalmic systems
- ♦ Differentiate between premature and stunted foals and what to do in each case, as well as how and when to perform cardiopulmonary resuscitation
- ♦ Further understand pathologies that have to do with the immune system such as failure of immunoglobulin transfer, as well as understand the neonatal septicaemia state and how to treat it in hospital
- ♦ Understand the neurological pathologies in neonates, differentiate them and treat them in hospital, in order to be able to establish a prognosis during monitoring
- ♦ Understand the most important respiratory pathologies in neonates, the most commonly used diagnostic methods and the precise treatments in the hospital
- ♦ Identify the main gastrointestinal and hepatic pathologies in neonates, how to establish main differential diagnoses, as well as their treatment and monitoring in the hospital
- ♦ Evaluate the different musculoskeletal pathologies that could affect the neonate, both congenital and acquired, and the possible treatments
- ♦ Identify urinary and endocrine pathologies, their treatment and monitoring in the hospital
- ♦ Learn how to establish the necessary support therapy in the neonate in terms of fluid therapy, feeding, antibiotic therapy and analgesia during hospitalization

### **Module 7. Genitourinary System Pathologies in Hospitalized Patients: Treatment and Monitoring**

- ♦ Clinically evaluate the genitourinary system and the different parameters that can be monitored systemically and at urinary level
- ♦ Analyze the physiology and pathophysiology of the genitourinary system
- ♦ Recognize the most common pathologies of the urinary system, both at functional, infectious and obstructive levels
- ♦ Identify the exact location of pathologies with common clinical symptomatology, which in many cases require hospitalization for the performance of dynamic diagnostic tests
- ♦ Establish how to treat and assess the severity of urinary system pathologies and the advantages of hospitalization for many of these patients for monitoring and avoiding the possibility of chronic processes
- ♦ Evaluate the male and female reproductive systems and, respectively, the most common pathologies
- ♦ Identify sexually transmitted diseases in males and females and their consequences, as well as possible treatments
- ♦ Monitor pregnant mares and the possible problems that may arise during postpartum, as well as the advantages of hospitalization in order to avoid them

### **Module 8. Endocrine System Disorders Hospitalization of horses with dermatological problems**

- ♦ Recognize the main endocrine problems, as well as the static and dynamic diagnostic methods for each of them
- ♦ Establish the appropriate medical stabilization therapies for endocrine problems and how to adjust them according to the evolution of the disease
- ♦ Determine adequate nutrition in patients with endocrine problems, as well as obesity control in animals with metabolic syndrome
- ♦ Identify the main pathologies affecting the skin in equids

- ♦ Examine the etiology, clinical and laboratory signs, and establish the prognosis of the main dermatological diseases in horses
- ♦ Determine the symptoms of bacterial and viral skin diseases and propose treatment options
- ♦ Identify the symptoms of skin diseases of fungal and parasitic origin and propose treatment options
- ♦ Determine the symptoms of allergic and immune-mediated skin diseases and propose treatment options
- ♦ Identify the symptoms of other skin diseases such as vasculitis and nutritional disorders that are reflected in the skin

#### **Module 9. Poisoning. Ophthalmic Pathologies Parasitosis in equids Donkey medicine Hospitalization and medicine in geriatric patients**

- ♦ Analyze the origin of intoxications and their involvement in the gastrointestinal, nervous, cardiovascular, lymphatic, hepatic and urinary systems
- ♦ Recognize the clinical signs of intoxications related to body condition, skeletal system and epithelium
- ♦ Establish work and evaluation methodology for patients with ophthalmic pathologies
- ♦ Examine the methodology for the implementation of treatment systems and their management in hospitals
- ♦ Gain in depth knowledge of ophthalmologic evaluation, identification of ocular pathologies and their treatment and hospital management
- ♦ Determine the parasites involved in respiratory and gastrointestinal pathologies
- ♦ Establish the different treatments for equine parasites
- ♦ Examine endocrine pathologies and their particularities in the treatment of donkeys
- ♦ Establish an appropriate approach to the geriatric patient
- ♦ Examine the most common notifiable diseases and their diagnosis, as well as the management and control of infectious diseases

#### **Module 10. Surgical Patient Hospital Care and Emergency Hospital Procedures**

- ♦ Select, with updated scientific criteria, the best treatments for wounds that heal by second intention, monitoring their evolution and considering the most serious complications of the healing process in order to elaborate adequate treatment plans
- ♦ Demonstrate extensive use of new therapies, such as laser or ozone, in the wound healing process
- ♦ Be specialized in the technique of venography and demonstrate mastery of it both for the diagnosis of pathologies in hoofs and for monitoring the evolution of laminitis
- ♦ Demonstrate a thorough knowledge of techniques and medications for the management of chronic pain in laminitis and other pathologies
- ♦ Determine when to use synovial needle lavage and when to use arthroscopy, using up to date knowledge of synovial fluid monitoring and imaging methods
- ♦ Develop optimal rehabilitation plans for angular or flexural deformities
- ♦ Demonstrate a biomechanical knowledge of the shoeing techniques used in the pathologies studied in this module
- ♦ Determine how and when to perform an emergency tracheostomy, and how to carry out aftercare
- ♦ Examine how to adapt abdominal dressings and bandages to the status of the post-surgical incision for acute abdominal syndrome
- ♦ Operate post-surgical incisions in both open and closed castration, proposing different rehabilitation plans according to the procedure
- ♦ Manage the post-surgical incision of a phalloectomy and determine when to remove the urethral catheter

# 03 Skills

This program in Equine Hospital Medicine has been created as a qualification tool for professionals. This Professional Master's Degree will enable students to work in all areas related to this sector with the confidence of an expert.





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*The Professional Master's Degree in Equine Hospital Medicine will provide you with the essential personal and professional skills to play an adequate role in any professional situation in this field of intervention"*



## General Skills

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- Have a developed understanding of the design and organization of an equine hospital
- Have the specific knowledge necessary to operate in the equine digestive field
- Understand horses with heart disease in all its approaches
- Operate on respiratory patients
- Address the care of neurological patients
- Work with equine neonates
- Operate on genitourinary problems in equines
- Address endocrine disorders in equines
- Work specifically with donkeys
- Treatment of intoxications in equines
- Work with less frequent pathologies that require hospitalization
- Care for the geriatric patient



*Update your knowledge through the Equine Hospital Medicine program"*



## Specific Skills

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- Be able to move efficiently in equine hospital facilities
- Manage the protocols of action of an equine hospital
- Perform specific guidelines with infectious animals
- Deal with equine hospitalization pharmacology
- Choose between different maintenance therapies
- Execute advanced scanning techniques
- Monitoring critically ill patients
- Recognize diseases of the digestive system
- Provide guidelines forms of intervention in diseases of the digestive tract
- Examine cardiac horses and determine its health status
- Use advanced techniques for monitoring critical patients
- Apply cardiovascular medication
- Develop cardiopulmonary resuscitation
- Apply early treatment
- Operate in vascular alterations
- Perform a thorough and complete examination of respiratory patients
- Use the most advanced diagnostic methods in respiratory conditions
- Evaluate a horse's sporting performance
- Diagnose neurological diseases
- Choose advanced and appropriate diagnostic techniques in each case

- ♦ Recognize exercise-related muscle diseases
- ♦ Stabilize a neonatal foal
- ♦ Establish different approaches for premature and stunted foals
- ♦ Treat neonatal sepsis in hospital
- ♦ Treat different pathologies in neonates
- ♦ Prescribe supportive measures in neonates
- ♦ Diagnose the most common genitourinary pathologies
- ♦ Distinguish urinary pathologies that have similar symptoms
- ♦ Evaluate and treat genitourinary pathologies
- ♦ Detect and treat reproductive problems in horses and mares
- ♦ Recognize sexually transmitted diseases and prescribing appropriate treatments
- ♦ Monitor pregnant mares
- ♦ Diagnose endocrine problems in equines
- ♦ Stabilize patients with endocrine problems
- ♦ Implement an appropriate diet for endocrine problems
- ♦ Identify skin diseases in equines
- ♦ Provide effective treatment of skin diseases in equines
- ♦ Distinguish viral and bacterial skin diseases
- ♦ Recognize skin conditions of allergic origin
- ♦ Recognize other conditions with skin symptoms
- ♦ Diagnose equine intoxication
- ♦ Prescribe therapeutic intervention in cases of intoxication
- ♦ Address equine ophthalmic pathologies
- ♦ Identify parasites in respiratory and gastrointestinal diseases
- ♦ Provide treatment guidelines for parasitic diseases
- ♦ Diagnose and address endocrine pathologies in donkeys in a specific way
- ♦ Perform an adequate treatment and approach in case of geriatric patients
- ♦ Recognize notifiable diseases and the protocol to follow
- ♦ Treat wounds of secondary intention
- ♦ Understand the use of lasers and ozone therapy in wound healing
- ♦ Use venography in the diagnosis of hoof pathologies and laminitis
- ♦ Prescribe pain medication in cases of laminitis and other pathologies
- ♦ Perform synovial needle lavage
- ♦ Perform rehabilitation in angular or flexural deformities
- ♦ Know how to carry out a horseshoeing in certain pathologies
- ♦ Perform emergency tracheotomy and aftercare in appropriate cases
- ♦ Perform bandages in acute abdominal syndromes
- ♦ Take care of post-surgical incisions in closed and open castrations
- ♦ Take care of the phallectomy incision and proper urethral catheter removal

04

# Course Management

In keeping with this program's impeccable standards, TECH is proud to provide students with a teaching staff of the highest level, chosen for their proven experience Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.





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*An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your studies: a unique opportunity not to be missed”*

## Management



### Dr. Aguirre Pascasio, Carla

- ♦ Associate, Manager and Executive Director of the Veterinary Center, Animalicos Veterinary Medicine and Surgery in Murcia, Spain
- ♦ Doctor in Veterinary Medicine from the University of Murcia, "Doppler in digital ultrasonography in horses with laminitis", obtaining a grade of Outstanding Cum Laude
- ♦ Graduate in Veterinary Medicine from the University of Santiago de Compostela, Spain
- ♦ Professional in private practice with a specialty in Internal Medicine
- ♦ Equine clinical veterinarian, in charge of the Equine Internal Medicine Service at the Clinical Veterinary Hospital of the University of Murcia, Spain
- ♦ Managing associate and clinical field veterinarian at Ekisur Equipo Veterinario
- ♦ Consecutive scholarship and intern at the Clinical Veterinary Hospital of the University of Murcia, Spain
- ♦ Fellowship at Casal do Rio Equine Hospital
- ♦ Animal and farm inspector for the company TRAGSA with the category of Senior Graduate



### **Dr. Alonso de Diego, María**

- ♦ Graduate in Veterinary Medicine from the Complutense University of Madrid (U.C.M.)
- ♦ Spanish Certificate in Equine Clinic
- ♦ Service of Equine Internal Medicine of the Alfonso X El Sabio University Clinical Veterinary Hospital
- ♦ Associate Professor of the Faculty of Veterinary Medicine of the Alfonso X El Sabio University
- ♦ Member of the Association of Equine Veterinary Specialists
- ♦ Member of the Spanish Society of Ozone Therapy
- ♦ Mobile equine clinic veterinarian hired by self employed veterinarians
- ♦ Freelance equine ambulatory clinic veterinarian in Madrid

## Professors

### Dr. Benito Bernáldez, Irene

- ♦ Graduate in Veterinary Extremadura University (UEX), Cáceres Veterinary School
- ♦ Internship in Equine Medicine and Surgery at the Autonomous University of Barcelona Clinical Veterinary Hospital
- ♦ Professional internship through the Quercus Scholarship (Leonardo Da Vinci Program) for graduates of the University of Extremadura, lasting half a year, at Hippiatrica Equine Medical Center, Lisbon (Portugal), under the coordination of Dr. Manuel Torrealba (clinical director)
- ♦ Online training course on administrative activities in customer relations and administrative management given by Academia La Glorieta (Denia)
- ♦ Attendance to the courses of Ozone Therapy in equines coordinated by the Spanish Society of Ozone Therapy in Valencia

### Dr. De la Cuesta Torrado, María

- ♦ Veterinarian with clinical specialty in Equine Internal Medicine
- ♦ Member of the Organizing Committee of the "12th European College of Equine Internal Medicine Congress 2019 (ECEIM)
- ♦ Member of the Board of Directors of Spanish Society of Ozone Therapy
- ♦ Member of the Equine Clinicians Commission of the Official College of Veterinarians of Valencia
- ♦ Member of the Spanish Association of Equine Veterinarians (AVEE)
- ♦ Member of the scientific committee and coordinator of courses and congresses in the area of ozone therapy, supported by continuing education credits (CEC) granted by the National Health System
- ♦ Associate Professor, Department of Equine Medicine and Surgery, Universidad Cardenal Herrera Ceu, Valencia, Spain

### Dr. Rodríguez Vizcaíno, María Jesús

- ♦ Graduate in Veterinary Medicine from the University of Murcia
- ♦ Veterinarian at the Equine Medicine and Surgery Service of the Veterinary Clinic, Foundation of the University of Murcia, Spain
- ♦ Associate Professor of the Department of Animal Medicine and Surgery of the University of Murcia and is accredited by ANECA for the position of Assistant Professor Doctor
- ♦ Certificate awarded by the Royal College of Veterinary Surgeons (RCVS)
- ♦ Expert in Equine Surgery-Orthopedics (Cert ES-Orth)
- ♦ Diploma in the American College of Veterinary Specialists in Sports Medicine

### Dr. Villalba Orero, María

- ♦ Clinical veterinarian, member of the Anesthesia and Internal Medicine Services for Equids of the Veterinary Clinical Hospital Complutense (UCM) and of the Equine Anesthesia Service of the Virgen de Las Nieves Veterinary Clinical Hospital (Madrid)
- ♦ Degree in Veterinary Medicine from the Complutense University Madrid
- ♦ Doctor of Veterinary Medicine, Complutense University of Madrid
- ♦ European Certificate in Veterinary Cardiology (ESVPS)
- ♦ Master's Degree in Veterinary Sciences from the Complutense University of Madrid
- ♦ Master's Degree in Veterinary Cardiology
- ♦ Speaker at national equine cardiology congresses and courses
- ♦ Member of the Veterinary Cardiovascular Society (VCS), the European and Spanish Society of Cardiology (ESC and SEC) and the Spanish Association of Equine Veterinarians (AVEE)



**Dr. Criado, Raquel**

- ♦ Equine veterinary specialist
- ♦ Sports Medicine Service in the Alfonso X El Sabio University Clinical Veterinary Hospital
- ♦ Associate Professor of the Faculty of Veterinary Medicine of Alfonso X El Sabio University
- ♦ Graduate in Veterinary Medicine from the CEU Cardenal-Herrera University of Valencia
- ♦ Residency in Sports Medicine and Equine Surgery at the Hospital Clínico Veterinario de la UAX
- ♦ Associate Professor, Faculty of Veterinary Medicine, Universidad Alfonso X El Sabio
- ♦ Scientific publications in the field of Equine Medicine

**Dr. Díez de Castro, Elisa**

- ♦ Veterinary specialist in equine endocrinology
- ♦ Degree in Veterinary Medicine, University of Córdoba
- ♦ Post-graduate degree in equine specialization (T1-pro equine) at the Veterinary Faculty of Maisons Alfort (Paris)
- ♦ Veterinarian at the Equine Internal Medicine Service of the Hospital Clínico Veterinario de la Universidad de Córdoba
- ♦ Master's Degree in Animal Medicine, Improvement and Health
- ♦ Professor of the Master-Internship in Companion Animal Medicine and Surgery at the University of Cáceres and in the Master in Equine Sports Medicine at the University of Córdoba since its creation
- ♦ Associate Professor, Department of Animal Medicine and Surgery, University of Cordoba

**Dr. Martín Cuervo, María**

- ♦ PhD in Veterinary Medicine by the Extremadura University
- ♦ Degree in Veterinary Medicine from the University of Córdoba
- ♦ Master's Degree in Veterinary Science from the University of Extremadura
- ♦ Graduate of the European College of Equine Internal Medicine (ECEIM)
- ♦ Associate Professor of the Department of Animal Medicine and Surgery of the University of Extremadura, teaching equine internal medicine
- ♦ Professor of advanced courses at the UEx: "Theoretical-practical course of clinical analysis in veterinary medicine". Methodology and interpretation
- ♦ Professor of the Master-Internship in Medicine and Surgery of Horses at Extremadura University
- ♦ Professor of the International Master "Equine Reproduction" at Extremadura University
- ♦ Professor of the Master's Degree in Equine Therapy at Extremadura University. (2015)
- ♦ Professor of the Master's Degree in Equine Therapy at Extremadura University
- ♦ Associate Professor of the Department of Animal Medicine and Surgery, Extremadura University
- ♦ Professor of the Master's Degree in Companion Animal Medicine and Surgery (Equidae) at Extremadura University

**Dr. Rodríguez Hurtado, Isabel**

- ♦ Head of the Internal Medicine Service of Horses (UAX)
- ♦ Veterinary Degree - Madrid Complutense University
- ♦ Doctorate in Veterinary Medicine
- ♦ Graduate in Veterinary Internal Medicine, American College of Veterinary Internal Medicine (ACVIM)
- ♦ Residency in Equine Internal Medicine at Auburn University (USA)
- ♦ Master's Degree in Biomedical Sciences
- ♦ Master's Degree in Research Methodology in Health Sciences
- ♦ Professor of the Postgraduate Master's Degree in Equine Internal Medicine at the Alfonso X el Sabio University
- ♦ Head of the Large Animals Area of the Clinical Veterinary Hospital (UAX)

**Dr. Gómez Lucas, Raquel**

- ♦ Head of the Sports Medicine and Diagnostic Imaging Service of the Large Animal Area of the Clinical Veterinary Hospital of the Alfonso X el Sabio University
- ♦ Degree in Veterinary Medicine from the Complutense University Madrid
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- ♦ Professor of the Veterinary Degree at the Alfonso X el Sabio University, teaching Equine Diagnostic Imaging, Internal Medicine and Applied Anatomy
- ♦ Professor of the Postgraduate Master of Equine Medicine and Surgery Internship at the Universidad Alfonso X el Sabio
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**Dr. Fuentes Romero, Beatriz**

- ◆ Veterinarian hired by the Veterinary Clinical Hospital of the University of Extremadura
- ◆ Degree in Veterinary Medicine from Alfonso X El Sabio University
- ◆ Veterinarian in the Department of Large Animals at the Veterinary Hospital of the Alfonso X el Sabio University
- ◆ Master's degree in Equine Internal Medicine and residency of 3 years at the same hospital
- ◆ Freelance veterinary outpatient field clinic (24h emergency, internal medicine, anesthesia and reproduction)
- ◆ Professor of the Master-Internship, Clinical Veterinary Hospital of the University of Extremadura

**Dr. Martín Giménez, Tamara**

- ◆ Doctor of Veterinary Medicine and specialist in equine surgery
- ◆ Equine Surgery and Sports Medicine and Rehabilitation Service CEU Clinical Veterinary Hospital. Cardenal Herrera University, Valencia
- ◆ Tutor of the Master's Degree in Public Health University of Zaragoza
- ◆ Teacher of vocational training modules of equestrian technician and assistant Institut d'estudis aplicats S.L. Barcelona
- ◆ Postgraduate in Equine Clinic by the Autonomous University of Barcelona (UAB)

**Dr. Forés Jackson, Paloma**

- ◆ Vice-Dean of Students and Professional Guidance of the Faculty of Veterinary Medicine UCM
- ◆ Doctorate in Veterinary from the Complutense University of Madrid
- ◆ Director "Extraordinary Chair of Specialization in Equine Clinic" created by an agreement between the UCM and IMPROVE INTERNATIONAL
- ◆ Belongs to the group of Experts of the Spanish Agency of Medicines and Health Products (AEMPS) for the equine species
- ◆ Member of the INVETEQ research group dedicated to equine veterinary research and divulgation

05

# Structure and Content

The contents have been developed by different experts, with a clear purpose: to ensure that our students acquire each and every one of the skills necessary to become true experts in this field.

A comprehensive and well structured program that will lead to the highest standards of quality and success.






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*A comprehensive teaching program, structured in well developed teaching units, oriented towards learning that is compatible with your personal and professional life"*

## Module 1. Introduction to Hospital Medicine

- 1.1. Organization of an Equine Hospital
  - 1.1.1. Facilities
    - 1.1.1.1. Examination Rooms. Diagnostic Rooms. Operating Rooms Induction and Recovery Rooms
    - 1.1.1.2. Types of Hospitalization Rooms Depending on the Pathology
    - 1.1.1.3. Equipment Required in Each Examination Room
  - 1.1.2. Hospital Action and Disinfection Protocols
- 1.2. Pharmacological Principles in Hospital Clinics
  - 1.2.1. Design of Administration Guidelines
  - 1.2.2. Plasma Concentration Monitoring
  - 1.2.3. Dosage in Renal Failure
- 1.3. Rational Use of Antibiotics in Hospitals
  - 1.3.1. Prophylactic Use of Antibiotics
  - 1.3.2. Therapeutic Use of Antibiotics
  - 1.3.3. Frequent Bacterial Resistance in Hospitals and Action Protocols
- 1.4. Pain Relief in Equidae
  - 1.4.1. Detection of Pain in Hospitalized Patients
  - 1.4.2. Multimodal Analgesia
    - 1.4.2.1. NSAIDs
    - 1.4.2.2. Opioids
    - 1.4.2.3. Alpha-2 Agonists
    - 1.4.2.4. Local Anesthetics
    - 1.4.2.5. Ketamine
    - 1.4.2.6. Others
  - 1.4.3. Pain Treatment with Epidural and Perineural Catheters
  - 1.4.4. Complementary Therapies
    - 1.4.4.1. Acupuncture
    - 1.4.4.2. Extracorporeal Shockwave Therapy
    - 1.4.4.3. Chiropractics
    - 1.4.4.4. Laser Therapy
- 1.5. Clinical Approach to Hospital Patients
  - 1.5.1. Classification of the Patient Based on the Severity of Clinical Symptoms
  - 1.5.2. Hospitalization Protocol Based on the Severity of Clinical Symptoms
  - 1.5.3. Types of Intravenous Catheter and Uses in Hospitalization
  - 1.5.4. Monitoring Techniques
    - 1.5.4.1. Clinical Review of ICUs, TPRs
    - 1.5.4.2. Hematocrit Proteins
    - 1.5.4.3. Urine Density
- 1.6. Fundamentals of Fluid Therapy in Hospitalization
  - 1.6.1. Parenteral Fluid Therapy
    - 1.6.1.1. Types of Fluid
    - 1.6.1.2. Infusion Rate
  - 1.6.2. Enteral Rehydration
  - 1.6.3. Synthetic and Natural Colloids
  - 1.6.4. Hemotherapy
- 1.7. Enteral and Parenteral Nutrition in Hospitalized Patients
  - 1.7.1. Types of Animal Feed
  - 1.7.2. Types of Fodder
  - 1.7.3. Dietary Supplements
  - 1.7.4. Guidelines for Administration in Hospitalized Patients
  - 1.7.5. Total and Partial Parenteral Nutrition
- 1.8. Hematopoietic System Pathologies
  - 1.8.1. Hemolytic Anemia
    - 1.8.1.1. Immune-Mediated Hemolytic Anemia
    - 1.8.1.2. Equine Infectious Anemia
    - 1.8.1.3. Piroplasmiosis
    - 1.8.1.4. Other Causes
  - 1.8.2. Hemorrhagic Anemia
    - 1.8.2.1. Hemoperitoneum and Hemothorax
    - 1.8.2.2. Gastrointestinal Losses
    - 1.8.2.3. Losses From Other Origin

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- 1.8.3. Non-Regenerative Anemias
    - 1.8.3.1. Iron Deficiency Anemia
    - 1.8.3.2. Anemia due to Chronic Inflammation/Infection
    - 1.8.3.3. Aplastic Anemia
  - 1.8.4. Coagulation Disorders
    - 1.8.4.1. Platelet Disorders
      - 1.8.4.1.1. Thrombocytopenia
      - 1.8.4.1.2. Platelet Functional Disorders
    - 1.8.4.2. Disorders of Secondary Hemostasis
      - 1.8.4.2.1. Hereditary
      - 1.8.4.2.2. Acquired
    - 1.8.4.3. Thrombocytosis
    - 1.8.4.4. Lymphoproliferative Disorders
    - 1.8.4.5. Disseminated Intravascular Coagulation. Disseminated Intravascular Coagulation (DIC)
  - 1.9. Blood Hemogram and Serum Biochemistry of the Hospitalized Patient. Gasometry
    - 1.9.1. Red Blood Cells
    - 1.9.2. White Blood Cells
    - 1.9.3. Serum Biochemistry
    - 1.9.4. Arterial Blood Gases
  - 1.10. Immune System Pathologies in Hospitalized Patients
    - 1.10.1. Hypersensitivity Types
    - 1.10.2. Pathologies Associated with Hypersensitivity
      - 1.10.2.1 Anaphylactic Shock
      - 1.10.2.2 Purpura Haemorrhagica
    - 1.10.3. Autoimmunity
    - 1.10.4. Most Important Immunodeficiencies in Equines
      - 1.10.4.1. Diagnostic Tests
      - 1.10.4.2. Primary Immunodeficiencies
      - 1.10.4.3. Secondary Immunodeficiencies
    - 1.10.5. Immunomodulators
      - 1.10.5.1. Immunostimulants
      - 1.10.5.2. Immunosuppressants

## Module 2. Digestive and Hepatic Problems in Hospitalized Patients

- 2.1. Physical Examination and Diagnostic Methods in Gastrointestinal Pathologies
  - 2.1.1. Examination of Patients with Acute Abdominal Syndrome
  - 2.1.2. Nasogastric Probing and Rectal Palpation
  - 2.1.3. Blood Analysis, Abdominocentesis and Fecal Examination
  - 2.1.4. Protocol for Abdominal Ultrasound
  - 2.1.5. Endoscopy
  - 2.1.6. Absorption Test
  - 2.1.7. Hospitalization and Monitoring of Patients with Gastrointestinal Pathology
- 2.2. Pathophysiology of Gastrointestinal Inflammation
  - 2.2.1. Initiation of Inflammatory Reaction, Vascular Response, Cells Involved and Tissue Injury
  - 2.2.2. Pathophysiology of Diarrhea
  - 2.2.3. Pathophysiology of Paralytic Ileus
- 2.3. Oral Cavity, Esophagus and Stomach
  - 2.3.1. Oral Cavity and Esophageal Examination
  - 2.3.2. Dental Pathologies
  - 2.3.3. Dysphagia
  - 2.3.4. Esophageal Obstruction and Esophagitis
  - 2.3.5. Gastroduodenal Ulcers
    - 2.3.5.1. Pathophysiology
    - 2.3.5.2. Clinical Signs and Diagnosis
    - 2.3.5.3. Treatment
  - 2.3.6. Stomach Impaction
  - 2.3.7. Laminitis Due to Carbohydrate Overload
- 2.4. Pathologies of the Small Intestine, Peritoneum and Mesentery
  - 2.4.1. Inflammatory Diseases in the Small Intestine
    - 2.4.1.1. Duodenitis and Proximal Jejunitis
    - 2.4.1.2. Malabsorption and Maldigestion Syndrome
  - 2.4.2. Obstructive Small Intestine Diseases
    - 2.4.2.1. Ileum Impaction
    - 2.4.2.2. Strangulating Injuries in the Small Intestine
  - 2.4.3. Peritonitis and Mesenteric Pathology
- 2.5. Cecum and Colon Pathologies
  - 2.5.1. Inflammatory Diseases of the Colon and Cecum
    - 2.5.1.1. Infectious: Salmonella, Potomac Fever, Clostridium, Strongyles, Cyathostomes, etc.
    - 2.5.1.2. Toxic: Dysbiosis, NSAIDs, Cantharidin, Arsenic
  - 2.5.2. Treatment of Acute Diarrhea
  - 2.5.3. Strangulating and Vascular Diseases of the Colon
    - 2.5.3.1. Colon Volvulus
    - 2.5.3.2. Rectal Prolapse
    - 2.5.3.3. Non-Strangulating Intestinal Infarction Associated with *S. Vulgaris*
  - 2.5.4. Diseases Involving Simple Colon Obstruction
    - 2.5.4.1. Cecum Impaction
    - 2.5.4.2. Large Colon Impaction
    - 2.5.4.3. Enteroliths, Fecaliths, Trichobezoars and Foreign Bodies
    - 2.5.4.4. Calculi Impaction
    - 2.5.4.5. Colon Displacement
    - 2.5.4.6. Small Intestine Impaction
- 2.6. Gastrointestinal Neoplasms
  - 2.6.1. Intestinal Lymphoma
  - 2.6.2. Squamous Cell Carcinoma
  - 2.6.3. Leiomyoma
  - 2.6.4. Hemangiosarcoma
  - 2.6.5. Adenocarcinoma
  - 2.6.6. Mesothelioma
- 2.7. Hepatic Pathologies in Hospitalized Patients
  - 2.7.1. Specific Diagnostic Evaluation of the Liver. Liver Damage and Liver Failure Analytics: Functionality Tests
  - 2.7.2. Pathophysiology and Clinical Signs: Jaundice, Weight loss, Photosensitivity, Signs of Gastrointestinal Disturbance, Hemorrhagic Diathesis, Hepatic Encephalopathy
  - 2.7.3. Liver Ultrasound and Biopsy
  - 2.7.4. Liver-Specific Diseases
    - 2.7.4.1. Acute Diseases: Theiler's disease, Hepaticivirus, Hepatitis Caused by Clostridium, Ascending Bacterial Hepatitis, Hyperlipemia and Hepatic Lipidosis
    - 2.7.4.2. Chronic Diseases: Chronic Active Hepatitis, Cholelithiasis, Abscesses and Hepatic Neoplasms
  - 2.7.5. Hospital Treatment for Liver Disease



- 2.8. Endotoxemia and its Consequences for Hospitalized Patients
  - 2.8.1. Causes and Pathophysiology of Endotoxemia
  - 2.8.2. Clinical Signs and Diagnosis of Endotoxemia
  - 2.8.3. Consequences: Laminitis and DIC
- 2.9. Hospitalization of Patients with Gastrointestinal Problems. Specific Monitoring and Treatment
  - 2.9.1. Monitoring: ICUs, Htc and Prot, Gastric Emptying, Leakage Control, Pain Monitoring
  - 2.9.2. Rehydration and Maintenance of Oncotic Pressure
  - 2.9.3. Treatment of Paralytic Ileus
  - 2.9.4. Treatment for Endotoxemia
  - 2.9.5. Treatment of DIC
  - 2.9.6. Prevention and Treatment of Laminitis
    - 2.9.6.1. Preventive Pharmacological Therapy
    - 2.9.6.2. Cryotherapy
    - 2.9.6.3. Palmar Support Therapy
- 2.10. Nutrition of the Patient with Digestive and Hepatic Pathology
  - 2.10.1. Normal Enteral and Tube Nutrition
  - 2.10.2. Parenteral Nutrition
  - 2.10.3. Nutritional Peculiarities of Hepatic Patients
- 3.4. Most Common Structural Cardiac Pathologies in Hospitalized Horses
  - 3.4.1. Congenital
  - 3.4.2. Acquired
- 3.5. Most Common Arrhythmias in Hospitalized Horses
  - 3.5.1. Non-Pathologies
  - 3.5.2. Pathologies
- 3.6. Heart Complications in the Critically Ill Patient
  - 3.6.1. Structural
    - 3.6.1.1. Patent Ductus Arteriosus
    - 3.6.1.2. Endocarditis, Myocarditis, Pericarditis
    - 3.6.1.3. Cardiac Tamponade
  - 3.6.2. Heart Rate
    - 3.6.2.1. Atrial Fibrillation and Cardiac Arrest
    - 3.6.2.2. Ventricular Rhythms
- 3.7. Heart Therapy
  - 3.7.1. Cardiovascular Pharmacology
  - 3.7.2. Cardiovascular Resuscitation
- 3.8. Management of Heart Failure and Shock
  - 3.8.1. Heart Failure
  - 3.8.2. Shock
- 3.9. Vascular Disorders in Hospitalized Horses
  - 3.9.1. Aorto-Cardiac Fistula
  - 3.9.2. Aorto-Pulmonary Fistula
  - 3.9.3. Vasculitis
  - 3.9.4. Thrombophlebitis
  - 3.9.5. Aortoiliac Thrombosis
- 3.10. Vascular Therapy
  - 3.10.1. Pharmacology
  - 3.10.2. Surgical

### Module 3. Cardiac Pathologies in Hospitalized Patients

- 3.1. Evaluation of the Cardiovascular System
  - 3.1.1. Anamnesis and Clinical Examination
  - 3.1.2. Cardiac Auscultation
  - 3.1.3. Heart Murmurs
    - 3.1.3.1. Physiological Murmurs
    - 3.1.3.2. Pathological Murmurs
  - 3.1.4. Arterial and Venous System Evaluation
- 3.2. Monitoring of Hospitalized Patients I
  - 3.2.1. Echocardiography
  - 3.2.2. Vascular Ultrasound
- 3.3. Monitoring of Hospitalized Patients II
  - 3.3.1. Electrocardiography
  - 3.3.2. Continuous Telemetry
  - 3.3.3. Cardiac Output

## Module 4. Respiratory Pathologies in Hospitalized Patients

- 4.1. Clinical Assessment of the Respiratory System and Diagnostic Methods
  - 4.1.1. Examination of the Respiratory System
  - 4.1.2. Gasometry
  - 4.1.3. Respiratory Tract Sampling
    - 4.1.3.1. Samples from Nasal Cavity, Pharynx and Guttural Pouches
    - 4.1.3.2. Tracheal Aspiration and Bronchoalveolar Lavage
    - 4.1.3.3. Thoracentesis
    - 4.1.3.4. Pulmonary Biopsy
  - 4.1.4. Endoscopy
    - 4.1.4.1. Static and Dynamic Endoscopy of Upper Airways
    - 4.1.4.2. Sinuscopy
    - 4.1.4.3. Thoracoscopy
  - 4.1.5. Pulmonary Functionality Test
  - 4.1.6. Scintigraphy, CT Scan
- 4.2. Radiology and Ultrasound of the Respiratory System
  - 4.2.1. Radiology
    - 4.2.1.1. Nasal Cavity, Sinuses and Guttural Pouches
    - 4.2.1.2. Larynx and Trachea
    - 4.2.1.3. Thorax
  - 4.2.2. Ultrasound
    - 4.2.2.1. Ultrasound Techniques
    - 4.2.2.2. Laryngeal Ultrasound
    - 4.2.2.3. Pleural Effusion
    - 4.2.2.4. Atelectasis, Consolidation and Masses
    - 4.2.2.5. Pneumothorax
- 4.3. Upper Airway Pathologies
  - 4.3.1. Nasal Cavity Sinus and Guttural Pouch Pathologies
  - 4.3.2. Pharyngeal, Palatal and Laryngeal Pathologies
  - 4.3.3. Tracheal Pathologies
- 4.4. Specific Diagnostic Evaluation of Lower Airways
  - 4.4.1. Transtracheal Aspirate (TAST)
  - 4.4.2. Broncho-Alveolar Lavage (BAL)
  - 4.4.3. Pulmonary Functionality Test
  - 4.4.4. Gasometry
  - 4.4.5. Thoracic Ultrasound and Radiography
- 4.5. Lower Airway Inflammatory Pathologies
  - 4.5.1. Equine Asthma
  - 4.5.2. Exercise-Induced Pulmonary Hemorrhage
  - 4.5.3. Pulmonary Edema
- 4.6. Bacterial and Fungal Infectious Diseases of the Respiratory Tract
  - 4.6.1. Equine Mumps Equine Streptococcus Infection
  - 4.6.2. Bacterial Pneumonia and Pleuropneumonia
  - 4.6.3. Fungal Pneumonia
- 4.7. Mixed Pneumonia Viral Infectious Diseases of the Respiratory Tract and Tumors
  - 4.7.1. Interstitial Pneumonia and Pulmonary Fibrosis
  - 4.7.2. Equine Herpesvirus I, IV and V
  - 4.7.3. Equine Influenza
  - 4.7.4. Tumors of the Respiratory System
- 4.8. Chest Wall, Pleura, Mediastinum and Diaphragm Disorders
  - 4.8.1. Rib Fracture, Pneumothorax and Pneumomediastinum
  - 4.8.2. Diaphragmatic Hernia
  - 4.8.3. Pleural Effusion, Hemothorax and Chylothorax
  - 4.8.4. Pleuropneumonia
- 4.9. Hospitalization of Horses with Respiratory Diseases
  - 4.9.1. Handling and Monitoring
  - 4.9.2. Respiratory Pharmacological Therapy
    - 4.9.2.1. Systemic and Inhaled Antibiotherapy
    - 4.9.2.2. Steroidal and Non-Steroidal Anti-Inflammatory Medication
    - 4.9.2.3. Bronchodilators and Mucolytics
    - 4.9.2.4. Drugs that Decrease Pulmonary Fibrosis and Pleural Adhesions
  - 4.9.3. Oxygen Therapy
  - 4.9.4. Fluid Therapy and Plasmotherapy
  - 4.9.5. Permanent Pleural Drainage and Thoracotomy

- 4.10. Cardiorespiratory Evaluation of Sports Performance
  - 4.10.1. Cardiorespiratory Response to Exercise and Training
  - 4.10.2. Parameters and Monitoring Techniques
  - 4.10.3. Stress Test

## Module 5. Neurological and Muscular Problems in Hospitalized Patients

- 5.1. Evaluation of the Nervous System. Anatomical Location of the Injury
  - 5.1.1. Stationary Neurological Examination
  - 5.1.2. Examination in Motion
  - 5.1.3. Injury Localization
- 5.2. Complementary Methods in Neurological Pathologies
  - 5.2.1. Cerebrospinal Fluid: Collection and Analysis
  - 5.2.2. Diagnostic Imaging; Radiology, Myelography and Magnetic Resonance Imaging (MRI)
  - 5.2.3. Electromyography and Electroencephalography
  - 5.2.4. Laboratory Tests
- 5.3. Hospital Management of Neurological Patients
  - 5.3.1. Medical and Supportive Management of the Neurological Horse
  - 5.3.2. Specific Management of the Recumbent Horse
- 5.4. Neurological Pathologies I. Cranial Pathologies
  - 5.4.1. Meningitis
  - 5.4.2. Cranioencephalic Trauma
  - 5.4.3. Cranial Nerve Disorders
  - 5.4.4. Cerebellum Pathologies
  - 5.4.5. Epilepsy
- 5.5. Neurological Pathology II. Spinal Pathologies
  - 5.5.1. Cervical Stenotic Myelopathy
  - 5.5.2. Atlanto-Occipital Malformation
  - 5.5.3. Trauma/Luxation
  - 5.5.4. Cervical Osteomyelitis
  - 5.5.5. Tetanus
- 5.6. Neurological Pathology III. Peripheral Nerve and Neuromuscular Pathologies
  - 5.6.1. Botulism
  - 5.6.2. Motor Neuron Disease
  - 5.6.7. Peripheral Neuropathies
- 5.7. Multifocal Neurologic Pathologies
  - 5.7.1. Myeloencephalopathy
  - 5.7.2. Dysautonomia
  - 5.7.3. Myeloencephalopathy due to Herpesvirus
  - 5.7.4. Protozoal Myeloencephalopathy
  - 5.7.5. Verminous Myeloencephalopathy
  - 5.7.6. Polyneuritis or Cauda Equina Neuritis
  - 5.7.7. Rabies
  - 5.7.8. West Nile Virus
- 5.8. Evaluation and Diagnostic Methods of Muscular Pathologies
  - 5.8.1. Physical Examination
  - 5.8.2. Analytical and Urinalysis Alterations
  - 5.8.3. Muscle Biopsy
  - 5.8.4. Electromyography
- 5.9. Muscular Pathologies Related to Exertion
  - 5.9.1. Rhabdomyolysis
    - 5.9.1.1. Sporadic Rhabdomyolysis
    - 5.9.1.2. Recurring Rhabdomyolysis
  - 5.9.2. Traumatic Myopathies
  - 5.9.3. Electrolyte Disorders
  - 5.9.4. Mitochondrial Enzyme Deficiency
  - 5.9.5. Deficiencies Associated with Glycogen Storage
- 5.10. Myopathies Not Associated with Exercise
  - 5.10.1. Inflammatory, Infectious and Immune-mediated Myopathies
  - 5.10.2. Toxic and Hormonal Myopathies
  - 5.10.3. Nutritional Myopathies
  - 5.10.4. Circulatory Myopathies: Postanesthesia and Thromboembolic
  - 5.10.5. Malignant Hyperthermia
  - 5.10.6. Muscle Tone Disorders: Myotonias
    - 5.10.6.1. Hyperkalemic Periodic Paralysis

## Module 6. Medical Pathologies and Hospitalization for Foals

- 6.1. Neonatal Examination and Monitoring
  - 6.1.1. Neonatal Foal Care and Hospitalization
  - 6.1.2. Normal Clinical Parameters in the Foal during the First Days of Life
  - 6.1.3. Onset of Organ Systems Functioning at Birth and During the First Months of Life
    - 6.1.3.1. Gastric System
    - 6.1.3.2. Respiratory System
    - 6.1.3.3. Endocrine System
    - 6.1.3.4. Muscular and Neurological System
    - 6.1.3.5. Ophthalmic System
- 6.2. Gestational Age Disorders in Foals
  - 6.2.1. Premature, Dysmature and Stunted Foals
  - 6.2.2. Cardiopulmonary Resuscitation
- 6.3. Failure of Immune Transfer and Sepsis
  - 6.3.1. Failure to Transfer Passive Immunity. Causes
  - 6.3.2. Neonatal Sepsis
  - 6.3.3. Treatment, Management and Hospitalization of Septic Foals
- 6.4. Neurological Pathologies and Hospitalization of Neurological Foals
  - 6.4.1. Hypoxic-Ischemic Encephalopathy
  - 6.4.2. Septic Encephalitis, Meningitis and Metabolic Encephalopathies
  - 6.4.3. Congenital Neurological Pathologies
  - 6.4.4. Hospitalization and Management of Foals with Neurological Pathology
- 6.5. Respiratory Pathologies and Hospitalization of Neonatal Foals
  - 6.5.1. Bacterial and Viral Pathologies
  - 6.5.2. Rib Fractures
  - 6.5.4. Acute Respiratory Distress
  - 6.5.4. Diagnostic Imaging: Ultrasound and Radiology
  - 6.5.5. Hospitalization and Monitoring of Foals with Respiratory Pathology
- 6.6. Gastrointestinal and Hepatic Pathologies. Diagnostics and Monitoring
  - 6.6.1. Bacterial and Viral Diarrhea
  - 6.6.2. Meconium Impaction
  - 6.6.3. Congenital Gastrointestinal Pathologies
  - 6.6.4. Gastric Ulcers
  - 6.6.5. Tyzzer's Disease
  - 6.6.6. Equine Herpesvirus
  - 6.6.7. Neonatal Isoerythrolysis
- 6.7. Respiratory Pathologies and Hospitalization of Neonatal Foals
  - 6.7.1. Vitamin E and Selenium Deficiency
  - 6.7.2. Congenital Muscular Pathologies
- 6.8. Urinary and Endocrine Pathology and Monitoring
  - 6.8.1. Omphalophlebitis, Omphaloarteritis and Patent Urachus
  - 6.8.2. Bladder Rupture
  - 6.8.3. Monitoring of Neonates with Urinary Pathologies
  - 6.8.4. Thyroid Disorders
    - 6.8.4.1. Hypothyroidism
    - 6.8.4.2. Systemic Disease Associated with Hypothyroidism
    - 6.8.4.3. Monitoring of Neonates with Thyroid Pathologies
  - 6.8.5. Alterations of the Somatotrophic Axis
    - 6.8.5.1. Hypoglycemia
    - 6.8.5.2. Hyperglycemia
    - 6.8.5.3. Monitoring of Neonates with Lack of Maturation of the Endocrine System
- 6.9. Fluid Therapy and Nutrition for the Neonatal Foal
  - 6.9.1. Types of Intravenous Catheters and Infusion Sets
  - 6.9.2. Types of Fluid
  - 6.9.3. Types of Colloids
  - 6.9.4. Plasmotherapy and Hemotherapy
  - 6.9.5. Total and Partial Parenteral Feeding
- 6.10. Pharmacology in Neonatology.
  - 6.10.1. Antibiotic Therapy in Foals
  - 6.10.2. Analgesia in Foals
  - 6.10.3. Other Important Medications

## Module 7. Genitourinary System Pathologies in Hospitalized Patients: Treatment and Monitoring

- 7.1. Urinary System Assessment
  - 7.1.1. Hematological and Biochemical Parameters Related to the Renal System
  - 7.1.2. Urinalysis and Fractional Excretion of Electrolytes
  - 7.1.3. Diagnostic Methods in the Urinary System
    - 7.1.3.1. Urinary System Ultrasound
    - 7.1.3.2. Urinary System Endoscopy
    - 7.1.3.3. Renal Biopsy
    - 7.1.3.4. Water Deprivation Test
- 7.2. Urinary Physiology and Physiopathology
  - 7.2.1. Renal Anatomy and Physiology
  - 7.2.2. Pathophysiology of Renal Failure
- 7.3. Renal Failure
  - 7.3.1. Acute Kidney Failure Treatment and Monitoring
  - 7.3.2. Chronic Renal Failure. Treatment and Monitoring
  - 7.3.3. Uremic Syndrome Treatment and Monitoring
- 7.4. Urinary Tract Infections
  - 7.4.1. Urethritis, Cystitis and Pyelonephritis
  - 7.4.2. Therapies and Monitoring of Urinary Tract Infections
  - 7.4.3. Obstructive Pathology of the Urinary Tract
  - 7.4.4. Treatment of Obstructive Pathologies of the Urinary Tract
- 7.5. Other Urinary Tract Pathologies
  - 7.5.1. Pathologies with Polyuria/Polydipsia
  - 7.5.2. Renal Tubular Acidosis
  - 7.5.3. Urinary Tract Tumors
- 7.6. Urinary Incontinence and Bladder Dysfunction
- 7.7. Reproductive System Evaluation
  - 7.7.1. Male Reproductive System Evaluation
  - 7.7.2. Female Reproductive System Evaluation
- 7.8. Mare Reproductive System Evaluation
  - 7.8.1. Vulvar, Vaginal, Cervical, Uterine and Ovarian Pathologies
  - 7.8.2. Sexually Transmitted Diseases

- 7.9. Pregnant Mares
  - 7.9.1. Evaluation and Monitoring of the Pregnant Mare
  - 7.9.2. Pathologies Associated with Postpartum
- 7.10. Stallion Reproductive System Pathologies
  - 7.10.1. Male Genital Pathologies: Disorders of the Penis, Prepuce, Scrotum, Testicle, Epididymis and Accessory Glands
  - 7.10.2. Sexually Transmitted Diseases

## Module 8. Endocrine System Disorders Hospitalization of Horses with Dermatological Problems

- 8.1. Calcium, Phosphorus and Magnesium Disorders. Thyroid Gland Pathologies
  - 8.1.1. Hypercalcemia and Hypocalcemia
  - 8.1.2. Hyperphosphatemia and Hypophosphatemia
  - 8.1.3. Hypermagnesemia and Hypomagnesemia
  - 8.1.4. Hyperthyroidism and Hypothyroidism
- 8.2. Hypoadrenocorticism, Mid-Pituitary Dysfunction and Anhidrosis
  - 8.2.1. Hypoadrenocorticism, Treatment and Monitoring
  - 8.2.2. Intermediate Pituitary Dysfunction, Treatment and Monitoring
  - 8.2.3. Anhidrosis, Diagnostic Tests and Treatment
- 8.3. Insulin Dysregulation and Equine Metabolic Syndrome
  - 8.3.1. Pathophysiology
  - 8.3.2. Static and Dynamic Diagnostic Tests
  - 8.3.3. Treatment
- 8.4. Nutrition of Endocrine Patients
  - 8.4.1. Nutrition of Patients with Metabolic Syndrome
  - 8.4.2. Obesity Control and Monitoring
- 8.5. Skin Evaluation
  - 8.5.1. Anatomy of the Cutaneous System
  - 8.5.2. Laboratory Evaluation Methods
- 8.6. Infectious Skin Diseases
  - 8.6.1. Bacterial Skin Diseases
  - 8.6.2. Fungal Diseases
  - 8.6.3. Parasitic Diseases

- 8.7. Skin Disorders I
  - 8.7.1. Hair Disorders
  - 8.7.2. Keratinization Disorders
  - 8.7.3. Collagen Disorders
- 8.8. Skin Disorders II
  - 8.8.1. Nutritional Disorders
  - 8.8.2. Toxic Disorders
  - 8.8.3. Immune-Mediated Disorders
- 8.9. Skin Disorders III
  - 8.9.1. Necrotizing Disorders
  - 8.9.2. Neoplastic Disorders
- 8.10. Therapy for Dermatological Problems
  - 8.10.1. Skin Therapies
  - 8.10.2. Systemic Therapies
  - 8.10.3. Immunomodulatory Therapies

### Module 9. Poisoning. Ophthalmic Pathologies. Equine Parasitosis. Donkey Medicine. Hospitalization and Medicine in Geriatric Patients

- 9.1. Poisoning, Treatment and Hospitalization I
  - 9.1.1. Poisoning Leading to Gastrointestinal Disorders
  - 9.1.2. Poisoning Leading to Central Nervous System Disorders
  - 9.1.3. Poisoning Affecting the Cardiovascular and Lymphatic System
- 9.2. Poisoning, Treatment and Hospitalization II
  - 9.2.1. Poisoning Leading to Liver Dysfunction
  - 9.2.2. Poisoning Affecting the Urinary System
  - 9.2.3. Poisoning That Causes Signs Related to the Epithelium
  - 9.2.4. Poisoning That Causes Skeletal System and Body Condition Disorders
- 9.3. Ocular System I
  - 9.3.1. Examination of the Eye
  - 9.3.2. Eyelid, Nasolacrimal System and Orbital Disorders
  - 9.3.3. Subpalpebral Catheter Placement
  - 9.3.4. Hospitalization and Management of Patients with Ocular Pathology
- 9.4. Ocular System II
  - 9.4.1. Corneal Pathology
  - 9.4.2. Medical and Surgical Therapies for Corneal Pathologies

- 9.5. Ocular System III
  - 9.5.1. Uveal Pathologies
  - 9.5.2. Lens Pathologies
  - 9.5.3. Retinal Pathologies
- 9.6. Parasitosis in Equids
  - 9.6.1. Gastrointestinal Parasites
  - 9.6.2. Respiratory Parasites
  - 9.6.4. Antiparasitic Therapy
- 9.7. Pathologies of Donkeys
  - 9.7.1. Hyperlipidemia, Mid-Pituitary Dysfunction and Obesity
  - 9.7.2. Pharmacological Differences with Equidae
- 9.8. Most Common Pathologies in Geriatric Patients
  - 9.8.1. Most Common Gastrointestinal Pathologies in Geriatric Patients
  - 9.8.2. Most Common Cardio-Respiratory Pathologies in Geriatric Patients
  - 9.8.3. Most Common Endocrine Pathologies in Geriatric Patients
- 9.9. Notifiable Diseases
  - 9.9.1. Most Common Notifiable Diseases Worldwide
  - 9.9.2. Diagnostic Techniques
- 9.10. Infectious Disease Control and Management Methods
  - 9.10.1. Infectious Disease Management Facilities. Health Barriers
  - 9.10.2. Animal Isolation
  - 9.10.3. Handling of Patients with Infectious Diseases and Personal Protective Equipment

### Module 10. Surgical Patient Hospital Care and Emergency Hospital Procedures

- 10.1. Care and Hospitalization of Patients with Wounds
  - 10.1.1. Wound Healing by Primary Intention
    - 10.1.1.1. Complications
  - 10.1.2. Wound Healing by Secondary Intention
    - 10.1.2.1. Complications
  - 10.1.3. Topical Treatments, Dressings and Skin Grafts: What to Use and When
  - 10.1.4. New Therapies for Wound Healing: Laser, Cellular Therapy, Radiofrequency, Ozone

- 10.2. Care and Hospitalization of Pathologies in Hooves
  - 10.2.1. Diagnostic Imaging Methods
    - 10.2.1.1. Radiography and Ultrasound
    - 10.2.1.2. Advanced Diagnostic Methods: CT, MRI
    - 10.2.1.3. Venography
  - 10.2.2. Foot Baths, Poultices and Other Topical Medications
  - 10.2.3. Fissures and Resections of Corneal Sheaths
  - 10.2.4. Hospitalization of Horses with Laminitis
    - 10.2.4.1. Chronic Pain Management
    - 10.2.4.2. Post-Surgical Care after Deep Digital Flexor Tendon Tenotomy
  - 10.2.5. Most Common Horseshoeing
  - 10.2.6. Complications
- 10.3. Care and Hospitalization of Patients with Joint Pathologies. Fractures
  - 10.3.1. Fundamentals of Immobilization of the Musculoskeletal System During Hospitalization
  - 10.3.2. Types of Bandages: Splints, Glass Fibers, etc.
  - 10.3.3. Complications
- 10.4. Care and Hospitalization of Patients with Septic Synovial and Bone Structures
  - 10.4.1. Synovial Fluid Collection and Monitoring
  - 10.4.2. Monitoring by Imaging Techniques: Radiography and Ultrasound
  - 10.4.3. Lavages with Needles Lavages with Arthroscopy
  - 10.4.4. Regional Perfusions
  - 10.4.5. Intrasynovial and Osseous Medication Update
- 10.5. Care and Hospitalization of Developmental Diseases in Foals
  - 10.5.1. Angular Deformities
    - 10.5.1.1. Radiological Monitoring by Angle Measurement
    - 10.5.1.2. Rehabilitation Plans
    - 10.5.1.3. Templates and Horseshoeing
    - 10.5.1.4. Post-Surgical Care: Bandages, Splints, Glass Fibers
    - 10.5.1.5. Complications
  - 10.5.2. Flexural Deformities
    - 10.5.2.1. Bandages and Monitoring
    - 10.5.2.2. Rehabilitation Plans
    - 10.5.2.3. Horseshoeing
- 10.6. Specific Postoperative Incisional Care of Acute Abdominal Syndrome
  - 10.6.1. Sterile Incision Handling
  - 10.6.2. Types of Bandages
  - 10.6.3. Ultrasound Monitoring of the Incision.
  - 10.6.4. Topical Treatments: Medication, Cellular Therapy, Ozone Therapy
  - 10.6.5. Complications of the Incision: Infections and Hernias
- 10.7. Care and Hospitalization of the Surgical Patient with Upper Respiratory Tract Pathologies
  - 10.7.1. Handling of the Surgical Incision After Laryngoplasty
  - 10.7.2. Handling of the Surgical Incision after Ventriculectomy or Ventriculocochordecotomy
  - 10.7.3. Post-operative Care after Laser Treatment of Upper Respiratory Tract Pathologies
  - 10.7.4. Complications
  - 10.7.5. Emergency Tracheotomy
  - 10.7.6. Post-Surgical Treatment of the Paranasal Sinuses: Trepanations, Osteotomies, etc.
- 10.8. Handling of Dystocic Labor
  - 10.8.1. Stationary and under General Anesthesia. Aftercare of the Mare
  - 10.8.2. Hospitalization of Mares after Cesarean Section
- 10.9. Management and Hospitalization of Surgical Pathologies of the Postpartum Mare
  - 10.9.1. Perineal and Vaginal Laceration and Recto-Vaginal Fistula. Pre- and Post-Surgical Handling
  - 10.9.2. Pre- and Post-Surgical Care of Pneumovagina and Urovagina Treatment
  - 10.9.3. Post-Surgical Complications
- 10.10. Management and Hospitalization of Surgical Pathologies of the Male Reproductive System
  - 10.10.1. Closed Castrations Open Castrations
  - 10.10.2. Phimosis, Paraphimosis and Priapism
    - 10.10.2.1. Conservative Management
    - 10.10.2.2. Post-Surgical Management: Segmental Prostatectomy, Phallectomy
  - 10.10.3. Postoperative Care after Temporary Urethrostomy and Urethrotomy
  - 10.10.4. Complications

# 06 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.







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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a veterinarian's professional practice.

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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.



*Veterinarians will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology more than 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where the students have a high socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

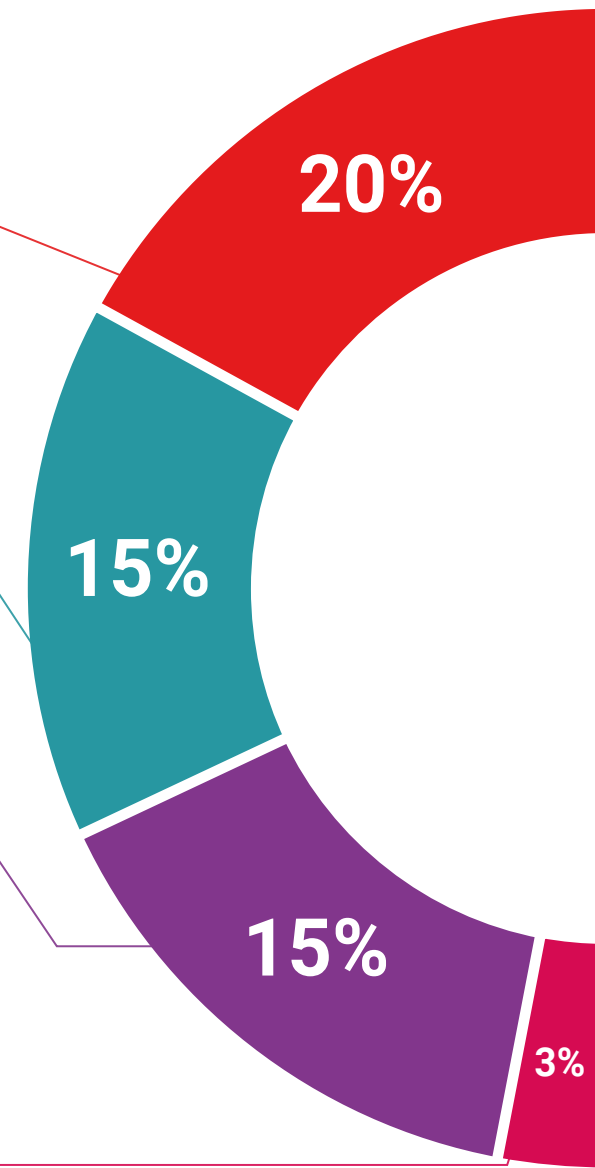
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

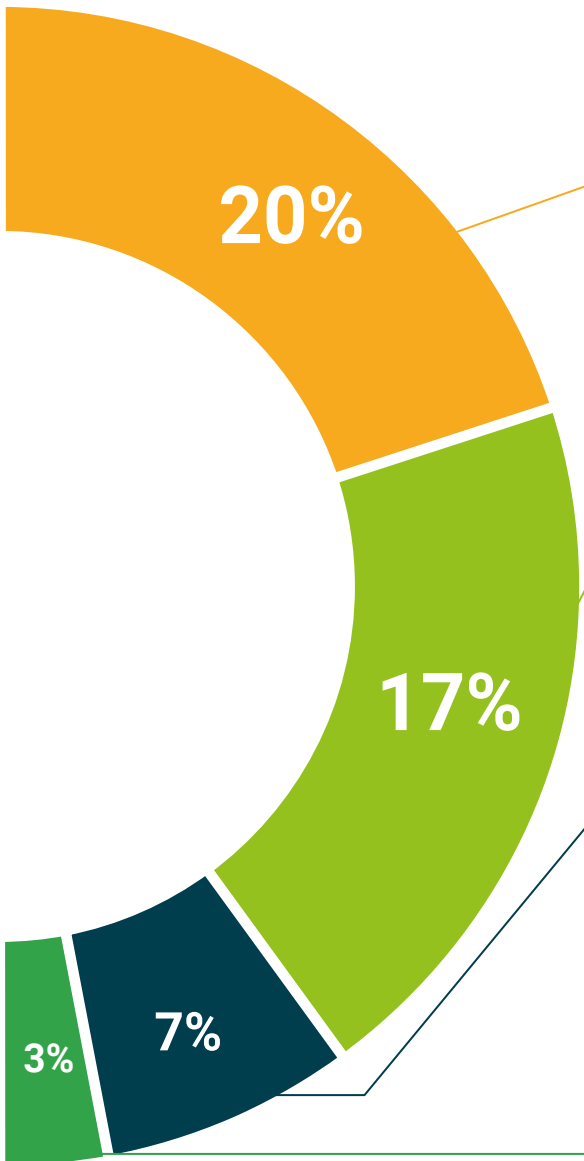
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



# 07 Certificate

The Professional Master's Degree in Equine Hospital Medicine guarantees students, in addition to the most rigorous and up to date education, access to a certificate issued by TECH Technological University.





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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This **Professional Master's Degree in Equine Hospital Medicine** contains the most complete and up to date program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the **Professional Master's Degree**, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation Committee.

**Title: Professional Master's Degree in Equine Hospital Medicine**

**Official N° of hours: 1,500 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

future  
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education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development language  
classroom

**tech** technological  
university

## Professional Master's Degree

Equine Hospital Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree

## Equine Hospital Medicine

