

# Postgraduate Diploma Horse Vital Systems





## Postgraduate Diploma Horse Vital Systems

- » Course Modality: Online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Official N° of hours: 450 h.

Website: [www.techtute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-horse-vital-systems](http://www.techtute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-horse-vital-systems)

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# 01

# Introduction

The pathologies of the vital systems represent different risks in equines, which constitute high-risk diseases with a higher incidence in the equine veterinary sector. Many of them can be seen frequently in routine clinical practice and depending on the type of pathology, as well as the speed and efficiency with which the clinician acts. This comprehensive specialization is an opportunity for veterinarians who wish to delve deeper into the horse's vital systems. It is a 100% online program, enriched with audiovisual material, complementary readings and self-knowledge exercises.







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*You will learn to develop and advance in depth in the diseases that affect the digestive tract from the stomach to the rectum, assessing the stage of the pathologies that appear"*

The pathologies of the different vital systems can present themselves in different ways in equine patients, from the horse's mood to anomalies that may appear in its body. However, the veterinarian's duty is to ensure the equine's safety, which is why through this program the professional will be able to identify which are and how to treat diseases and affections in the vital systems.

Nowadays, the most determinant proven factor for the appearance of problems in equines is given by the context in which the animal lives; to what use it is destined, what type of feeding it receives, as well as the management and stabling conditions.

Nutritional management and preventive medicine will play a decisive role in the treatment of the horse, so it is of vital importance to know the different cares in those affected areas.

In short, this Postgraduate Diploma will provide up-to-date information on how to use the most advanced diagnostic and therapeutic tools, adapting them to the possibilities in the field. It will address the main pathologies and conditions affecting the horse, as well as recovery and prevention techniques.

This **Postgraduate Diploma in Horse Vital Systems** contains the most complete and up-to-date 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 finishing the course



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

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*A comprehensive program that will allow you to acquire the most advanced knowledge in all the fields of intervention of the Equine Veterinarian”*

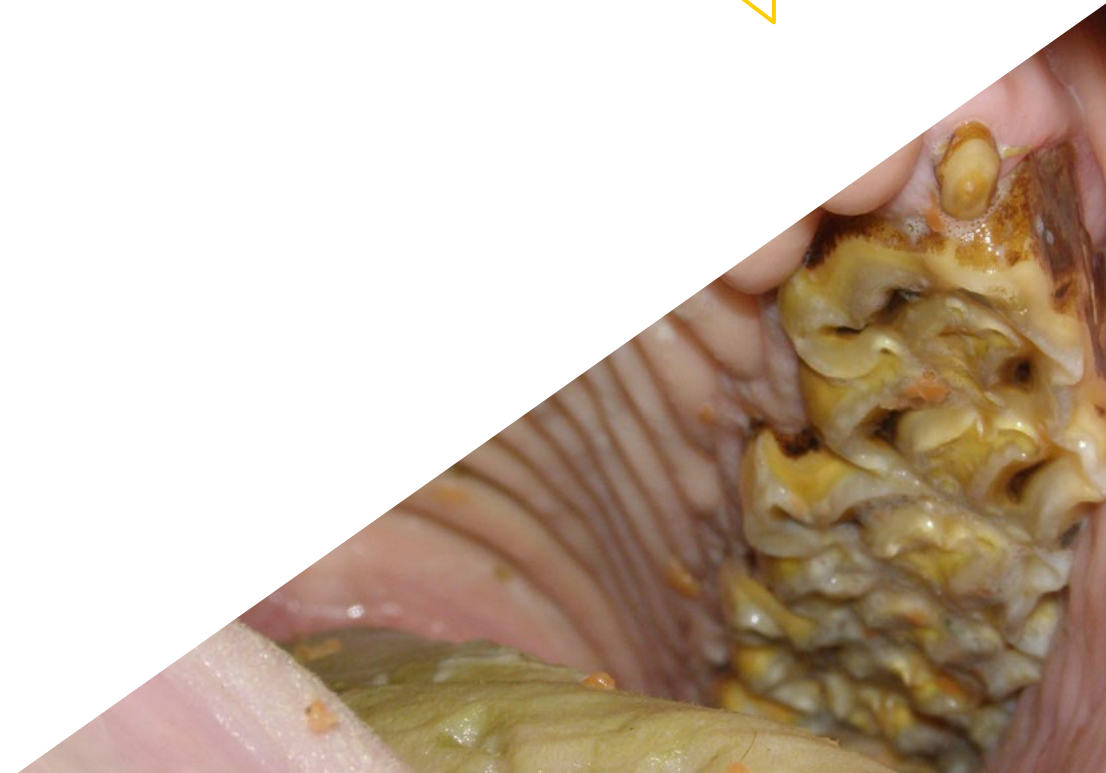
Our teaching staff is made up of professionals from different fields related to this specialty. In this way, we ensure that we provide you with the educational update we are aiming for. A multidisciplinary team of professionals prepared and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, will put at your service the practical knowledge derived from 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. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for 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, we will use telepractice learning: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*With the experience of active professionals and the analysis of real cases of success, in a high impact scientific approach.*

*A comprehensive and total update in Horse Vital Systems with the most complete and effective scientific program on the online teaching market.*





# 02

# Objectives

The objective is to prepare highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is materialized in helping professionals to reach a much higher level of competence and control. A goal that, in just a few months, you will be able to achieve with with a high intensity and effective education.







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*If your goal is to reorient your skills towards new paths of success and development, this is the place for you: an educational program that aspires to excellence".*



## General objectives

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- ♦ Identify the different anatomical structures and pathologies of the digestive tract of the horse
- ♦ Develop and advance in the most frequent procedures to solve oral cavity pathologies
- ♦ Recognize the symptoms of digestive disorders
- ♦ Enable the clinician to correctly assess the systemic state of the animal and the consequent severity of the pathology
- ♦ Establish diagnostic protocols and generate optimized treatments and prognoses
- ♦ Establish optimal preventive medicine criteria and good management guidelines
- ♦ Establish an appropriate methodology for the examination of the horse with respiratory or cardiac problems
- ♦ Identify all clinical signs associated with respiratory or cardiovascular disease in equids
- ♦ Generate specialized knowledge of respiratory and cardiac auscultation
- ♦ Establish the specific clinical approach to the horse with a respiratory or cardiovascular disorder
- ♦ Identify the pathologies of the urinary system of the horse
- ♦ Establish diagnostic protocols to facilitate the recognition of patients with urinary pathology
- ♦ Expand the alternatives of possible treatments according to pathological situations
- ♦ Recognize the medical and surgical genital pathologies of the stallion and the dam mare, assess their extent and provide appropriate treatments for recovery and restoration of proper reproductive function
- ♦ Develop surgical techniques for the resolution of pathologies of the reproductive system that can be performed in the field







## Specific objectives

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### Module 1. Digestive System

- ◆ Define correct methods of anamnesis, evaluation and assessment of the patient with digestive pathology
- ◆ Establish anesthetic blocking protocols for oral surgery and dental extractions
- ◆ Recognize and resolve mandibular and maxillary pathologies
- ◆ Properly develop general examination procedures such as rectal palpation, nasogastric probing, abdominocentesis, interpretation of analytical tests and diagnostic imaging in field conditions, and establish the appropriate treatments and issue the correct prognosis in the horse with abdominal pain
- ◆ Develop and advance in depth in the diseases affecting the digestive tract from the stomach to the rectum, assessing the stage of the pathologies that appear
- ◆ Develop and advance in depth on liver and biliary tract diseases in the horse and their possible treatments
- ◆ Develop and advance in depth in the infectious, infectious and parasitic diseases of the digestive tract and their and parasitic diseases of the digestive tract, as well as their various treatments
- ◆ Enhance knowledge, establish and develop the correct decision criteria to treat abdominal syndrome in the horse in the field, or in case of requiring surgical treatment, to be able to correctly inform the owner and advise on the referral of cases to the hospital in case surgery is required

### Module 2. Cardio-Respiratory and Vascular System

- ◆ Specify the necessary information in the clinical examination of the horse with respiratory or cardiac pathology
- ◆ Accurately recognize the normal respiratory and cardiac sounds found in horses





- ♦ Identify respiratory pathologies in order to classify them and decide on possible diagnostic tests if needed
- ♦ Establish the knowledge required when performing diagnostic procedures for respiratory patient such as Laboratory tests, cytology, BAL Diagnostic Imaging
- ♦ Propose work methodologies for patients with upper respiratory tract pathologies
- ♦ Propose a work methodology for patients with inflammatory lower respiratory tract pathologies
- ♦ Identify the surgical pathologies of the upper respiratory tract and develop the technical procedures that can be performed in the field, both in scheduled and emergency conditions
- ♦ Propose a work methodology for patients with infectious respiratory pathologies
- ♦ Differentiate between physiological murmurs and pathological murmurs
- ♦ Establish differential diagnoses of abnormal rhythms based on irregularity and heart rate
- ♦ Propose a work methodology for the patient with cardiac murmur
- ♦ Propose a work methodology for patients with arrhythmias

### Module 3. Reproductive and Urinary System

- ♦ Increase knowledge of pathologies affecting the urinary system
- ♦ Recognize and establish protocols for the management of patients with acute renal failure and chronic renal failure
- ♦ Establish working protocols for patients with post-renal urinary tract pathology
- ♦ Comprehend the predisposing factors that may condition the appearance this type of pathologies, and expand knowledge on the relevance of prevention
- ♦ Develop treatment alternatives available to the ambulatory veterinary clinician
- ♦ Delve into the pathology of the testicles, adnexal glands and penis, as well as their respective treatments



- ◆ Improve the productive management of the sub-fertile stallion and mare
- ◆ Identify and assess possible anomalies in the horse's ejaculate, applying the necessary procedures to guarantee its quality
- ◆ Identify, treat and prevent parasitic and infectious pathologies of the equine reproductive system
- ◆ Develop the pathologies of the female during the mating period and their possible treatments
- ◆ Develop the pathologies that affect the female during the gestation period and their possible treatments
- ◆ Develop the pathologies that affect the female in the prepartum and postpartum period and their possible treatments
- ◆ Attend to the needs and demands of euthyroid delivery and placental assessment
- ◆ Develop the procedures involved in the care of dystocic labor and the performance of fetotomy
- ◆ Develop procedures that include the resolution of possible injuries associated with labor and delivery, such as correction of rectovestibular fistulas, reconstruction of external lacerations and repair of the perineal body

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

03

# Course Management

Within the concept of total quality of our program, we are proud to put at your disposal 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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*Our teaching team, experts in Horse Vital Systems, will help you to achieve success in your profession"*

## International Guest Director

As one of the foremost veterinary surgeons in equine patient care, Dr. Andy Fiske-Jackson is the Deputy Director of the Royal Veterinary College Equine in the United Kingdom. This is one of the leading institutions in both equine patient care and veterinary development, education and innovation. This has allowed him to develop in a privileged environment, even receiving the James Bee Educator Awards for excellence in educational work.

In fact, Dr. Andy Fiske-Jackson is also part of the team of surgeons at the Equine Referral Hospital, focusing his work on orthopedic and soft tissue surgery. Thus, his main areas of focus are low performance, back pain, dental and sinus issues, digital flexor tendinopathies and regenerative medicine.

In terms of research, his work leans between diagnostic techniques for digital flexor tendinopathies, clinical uses of objective gait analysis and objective evaluation of back pain. His efficiency in this field has led him to actively participate in various international events and conferences, including congresses in Portugal, Czech Republic, Finland, Belgium, Hungary, Switzerland, Austria, Germany, Ireland, Spain and Poland.



## Dr. Fiske-Jackson, Andy

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- ♦ Deputy Director at the Royal Veterinary College Equine. Hertfordshire, United Kingdom
- ♦ Associate Professor of Equine Surgery at the Royal Veterinary College.
- ♦ Equine Surgeon at the Equine Referral Hospital. Hertfordshire, United Kingdom
- ♦ Veterinarian at Axe Valley Veterinary
- ♦ Veterinarian at Liphook Equine Hospital.
- ♦ Veterinarian at the Society for the Protection of Animals Abroad. Morocco
- ♦ Graduate of the University of Liverpool
- ♦ Master's Degree in Veterinary Medicine from the Royal Veterinary College

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*



## Management



### Dr. Varela del Arco, Marta

- Head of the Large Animals Area of the Complutense Veterinary Clinic Hospital of Madrid (UCM)
- Clinical Veterinarian in Equine Medicine, Surgery and Sports Medicine
- She teaches in different undergraduate and graduate courses, university specialization programs and Professional Master's Degrees
- She actively participates as director of final projects in the Veterinary Degree and as a member of the examining board of several doctoral theses
- Associate Professor, Department of Animal Medicine and Surgery, Complutense University of Madrid (UCM)
- Assistant Professor of the Department of Animal Medicine and Surgery, UCM



### 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 (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 field 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

## Professors

### Dr. Aguirre Pascasio, Carla

- ♦ PhD in Veterinary Medicine from the University of Murcia. After obtaining the Postgraduate Certificate in Advanced Studies
- ♦ Degree in Veterinary Medicine from the University of Santiago de Compostela
- ♦ Practicing veterinarian with a specialty in Internal Medicine: Second opinion for peers, competition team veterinarian, freelance in Equine Hospitals and Telemedicine
- ♦ Partner, Manager and Executive Director of the Veterinary Center, Animalicos Veterinary Medicine and Surgery in Murcia
- ♦ Equine clinical veterinarian, in charge of the Equine Internal Medicine Service at the Clinical Veterinary Hospital of the University of Murcia
- ♦ Managing partner and clinical field veterinarian at Ekisur Veterinary Team
- ♦ Fellowship at Casal do Rio Equine Hospital
- ♦ Senior graduate, for TRAGSA for animal and farm inspection

### Dr. Alonso de Diego, María

- ♦ Equine Internal Medicine Service at Clinical Veterinary Hospital of the Alfonso X El Sabio University
- ♦ Spanish Certificate in Equine Clinic
- ♦ Member of the Association of Equine Veterinary Specialists
- ♦ Member of the Spanish Society of Ozone Therapy
- ♦ Residency at the Clinical Veterinary Hospital of the UCM
- ♦ Mobile equine clinic veterinarian hired by self-employed veterinarians
- ♦ Freelance equine ambulatory clinic veterinarian in Madrid
- ♦ Training stays in several hospitals in Kentucky (USA) in the field of Equine Internal Medicine
- ♦ Associate Professor of the Faculty of Veterinary Medicine of the Alfonso X El Sabio University

### Dr. Barba Recreo, Martha

- ♦ PhD in Biomedical Sciences, Auburn University, Alabama, USA
- ♦ Degree in Veterinary from the University of Zaragoza
- ♦ Postgraduate Certificate of the American College of Internal Medicine, Large Animals
- ♦ Rotating internship in Equine Medicine and Surgery at the University of Lyon, VetAgro-Sup, France
- ♦ Residency in Equine Internal Medicine, "J.T. Vaughan Large Animal Teaching Hospital, Auburn University, Alabama, U.S.A
- ♦ Assistant Professor, Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, CEU Cardenal Herrera University, Valencia
- ♦ Professor and veterinary specialist in Equine Internal Medicine and research associate, Weipers Centre Equine Hospital, University of Glasgow, Scotland, United Kingdom
- ♦ Mobile equine veterinary clinic, Gres-Hippo, St. Vincent de Mercuze, France

### Dr. Benito Bernáldez, Irene

- ♦ Degree in Veterinary Medicine. University of Extremadura (UEX), Faculty of Veterinary Medicine of Cáceres
- ♦ Internship in Equine Medicine and Surgery at the Veterinary Clinic Hospital of the UAB (Autonomous University of Barcelona)
- ♦ University of Bristol Equine Hospital, *Referral Equine Hospital* (directed by Prof Alistair Barr) in Langford, (North Somerset), United Kingdom, under the supervision and coordination of Mr Henry Tremaine
- ♦ 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 Equids coordinated by María de la Cuesta and organized by the SEOT (Spanish Society of Ozone Therapy) in Valencia
- ♦ Attendance at education and refresher courses and seminars given by Spanish universities

**Ms. Carriches Romero, Lucía**

- ♦ Degree in Veterinary Medicine from Alfonso X El Sabio University
- ♦ Rotating and Advanced Internships for Equine Specialization at the Hospital Clínico Veterinario Complutense
- ♦ Outpatient veterinary clinic specializing in equine medicine, surgery, emergencies and reproduction
- ♦ Contracted external collaborating veterinarian at the Clinical Veterinary Hospital Complutense, Complutense University of Madrid (UCM)
- ♦ Attendance and publication of posters in national and international congresses
- ♦ Collaborating Professor in Practical Teaching, Department of Animal Medicine and Surgery, Complutense University of Madrid (UCM)

**D. Cervera Saiz, Álvaro**

- ♦ Equine clinical veterinarian in ambulatory service in the company "MC Veterinaria Equina"
- ♦ Graduated in veterinary medicine at the Catholic University of Valencia "San Vicente Martir"
- ♦ Attendance to specific courses and conferences in the equine area of the HUMECO group
- ♦ Attendance at training and refresher courses and seminars given by Spanish universities
- ♦ Collaboration as an internship teacher during the internship at CEU Cardenal Herrera University
- ♦ Stays in reference hospitals in the United Kingdom, under the supervision of specialists in equine medicine and surgery such as Luis Rubio, Fernando Malalana and Marco Marcatil
- ♦ Internship in Equine Medicine and Surgery at the Clinical Veterinary Hospital of the CEU Cardenal Herrera University

**Dr. Domínguez, Mónica**

- ♦ Clinical equine veterinarian specializing in internal medicine and reproduction
- ♦ Clinical Veterinary of the Reproduction Service of the Complutense Clinical Veterinary Hospital (HCVC)
- ♦ Degree in Veterinary Medicine from the Complutense University of Madrid (UCM)
- ♦ Official Master's Degree in Veterinary Science (UCM)
- ♦ Spanish Certificate in Equine Clinical (CertEspCEq)
- ♦ Associate Professor, Department of Animal Medicine and Surgery, Complutense University of Madrid (UCM)
- ♦ Collaborator in Practical Teaching at the Department of Animal Medicine and Surgery, Complutense University of Madrid (UCM)
- ♦ Teaching experience in Veterinary Technical Assistant (VTA) training in private academies (IDEA, Madrid) and other courses in the COVECA center (Equine Reproduction Center, Toledo)

**Dr. Forés Jackson, Paloma**

- ♦ Doctorate in Veterinary from the Complutense University of Madrid
- ♦ Vice-Dean of Students and Professional Orientation (Faculty of Veterinary Medicine, Complutense University of Madrid)
- ♦ Member of the Equine Medicine Service of the Complutense Clinical Veterinary Hospital (HCVC)
- ♦ Degree in Veterinary Medicine from the Complutense University Madrid
- ♦ Full Professor of the Department of Animal Medicine and Surgery at UCM
- ♦ Department of Animal Pathology II of the Faculty of Veterinary Medicine of the UCM
- ♦ *College of Veterinary Medicine, Department of Large Animal Clinical Sciences, Gainesville University, Florida*



**Dr. Gómez Lucas, Raquel**

- ♦ Doctor of Veterinary Medicine specializing in large species
- ♦ Degree in Veterinary Medicine from the Complutense University Madrid
- ♦ Graduate of the American College of Veterinary Sports Medicine and Rehabilitation (ACVSMR)
- ♦ Head of the Sports Medicine and Diagnostic Imaging Service of the Large Animal Area of the Clinical Veterinary Hospital, Alfonso X el Sabio University

**Mr. Goyoaga Elizalde, Jaime**

- ♦ Head of the Equine Surgery Service of the Complutense Clinical Veterinary Hospital (UCM)
- ♦ Degree in Veterinary Medicine from the University of Bern, Germany (veterinary clinic "Dr. Cronau") and the United States (University of Georgia)
- ♦ Professor in the Professional Master's Degree in Animal Medicine, Health and Improvement. Diagnostic Imaging. Cordoba
- ♦ Lecturer in Expert in Bases of Physiotherapy and Animal Rehabilitation. UCM
- ♦ Co-director and Professor of the Master "Equine Medicine and Surgery". *Improve International*
- ♦ Associate Professor in the Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, Complutense University of Madrid
- ♦ Professor of Medical and Nutritional Pathology, Special Surgery of Large Animals, Equine Pathology and Clinic, Hospitalization, Emergency and Intensive Care in Equine Clinic, Radiology and Diagnostic Imaging

**Dr. Rodríguez Hurtado, Isabel**

- ♦ Specialist in Internal Medicine of Horses
- ♦ Veterinary Degree - Madrid Complutense University
- ♦ Postgraduate Certificate from the American College of Veterinary Internal Medicine (ACVIM)
- ♦ Internship and 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 and Coordinator of the subject "Medical Pathology" and "Nutrition" of the Veterinary Degree (University Alfonso X El Sabio- UAX, Madrid)
- ♦ Professor of the Postgraduate Master's Degree in Equine Internal Medicine at the Alfonso X El Sabio University
- ♦ Head of the Internal Medicine Service of Horses (UAX)
- ♦ Head of the Large Animals Area of the Clinical Veterinary Hospital (UAX)

**Dr. Roquet Carne, Imma**

- ♦ Veterinary surgeon in Spain and Portugal
- ♦ Degree in Veterinary Medicine, Autonomous University of Barcelona
- ♦ Master's Degree in Veterinary Science from the University of Saskatchewan (Canada)
- ♦ Professor of several Master's Degrees in Equine Veterinary Medicine at the University of Extremadura and the Autonomous University of Barcelona
- ♦ Professor of Surgery at the University of Lusófana

**Dr. Santiago Llorente, Isabel**

- ♦ Doctorate in Veterinary from the Complutense University of Madrid
- ♦ Degree in Veterinary Medicine from the Complutense University Madrid
- ♦ Professor at Lusofona University of Lisbon (Portugal) in the Department of Clinical Medical Pathology II
- ♦ Her professional career is focused on Equine Clinical and Research, currently as a Veterinarian hired in the field of large animals at the Veterinary Clinic Hospital Complutense of the Complutense University of Madrid
- ♦ Head of Equine Internal Medicine and member of the Anesthesia Service at the Veterinary Clinic Hospital Complutense of the Complutense University of Madrid

**Dr. Villalba Orero, María**

- ♦ Scientific advisor in cardiovascular and pulmonary ultrasound at the National Center for Cardiovascular Research
- ♦ Doctor of Veterinary Medicine, Complutense University of Madrid
- ♦ Degree in Veterinary Medicine from the Complutense University Madrid
- ♦ Master's Degree in Veterinary Sciences from the Complutense University of Madrid
- ♦ Master's Degree in Veterinary Cardiology
- ♦ European Certificate in Veterinary Cardiology (ESVPS)
- ♦ Scientific publications in the field of equine cardiology and anesthesia, as well as in the field of cardiovascular diseases in humans

**Dr. Martín Cuervo, María**

- ♦ Head of the Internal Medicine Department of the Hospital Clínico Veterinario of the University of Extremadura
- ♦ PhD in Veterinary Medicine by the Extremadura University
- ♦ Degree in Veterinary Medicine from the University of Córdoba
- ♦ Veterinarian, member of the *European Board of Veterinary Specialization* (EBVS) and the *European College of Equine Internal Medicine* (ECVIM). Member of the Spanish Association of Equine Veterinarians (AVEE)
- ♦ Associate Professor of the Department of Animal Medicine and Surgery, Extremadura University

**Dr. Muñoz Morán, Juan Alberto**

- ♦ Doctor of Veterinary Sciences specializing in major species
- ♦ Degree in Veterinary Medicine from the Complutense University of Madrid
- ♦ Graduate of the European College of Veterinary Surgeons
- ♦ Professor in Large Animal surgery at the Veterinary University of Pretoria, South Africa
- ♦ Head of the Equine Surgery Residency Program at the Veterinary University of Pretoria, South Africa
- ♦ Head of the large animal surgery service and professor at the Alfonso X El Sabio University, Madrid
- ♦ Surgeon at the Equine Hospital of Aznalcollar, Seville

**Dr. Iglesias García, Manuel**

- ◆ Surgeon at the Veterinary Hospital of the University of Extremadura
- ◆ Doctor by the Alfonso X El Sabio University
- ◆ Degree in Veterinary Medicine from the Alfonso X El Sabio University in Madrid

**Dr. León Marín, Rosa**

- ◆ Clinical veterinarian specialized in Equine Dentistry
- ◆ Degree in Veterinary Medicine, Universidad Complutense de Madrid
- ◆ PhD in Veterinary Medicine from the Complutense University of Madrid with the qualification of "Outstanding cum Laude by Unanimity"
- ◆ External tutor of the subject "Internships", tutoring second cycle students of the Faculty of Veterinary Medicine of the Complutense University of Madrid, the Alfonso X El Sabio University of Madrid and the CEU Cardenal Herrera University of Valencia
- ◆ Courses of "Sport Technician in Riding" of the Madrid Equestrian Federation, courses for the education of professionals in the handling of racehorses
- ◆ Professor in postgraduate courses in Veterinary Rehabilitation at the Equine Clinic. IACES, courses of Expert in Therapeutic Riding and Expert in Bases of Physiotherapy and Animal Rehabilitation of the Faculty of Veterinary Medicine of the Complutense University of Madrid

**Dr. López San Román, Javier**

- ◆ Doctor in Veterinary Medicine specializing in organisms of larger species
- ◆ Degree in Veterinary Medicine (Specialty in Medicine and Health)
- ◆ Degree in Veterinary Medicine. Organism: Faculty of Veterinary Sciences. UCM
- ◆ Doctorate Recognition of research proficiency. Surgery and Reproduction Program. Department of Animal Pathology II. Faculty of Veterinary Medicine, Complutense University of Madrid
- ◆ Postgraduate Certificate European College of Veterinary Surgeons

**Dr. Manso Díaz, Gabriel**

- ◆ Clinical veterinarian, member of the Diagnostic Imaging Service at Complutense Veterinary Clinical Hospital (HCVC)
- ◆ Degree in Veterinary Medicine from the Complutense University of Madrid (UCM), obtaining the Extraordinary National Award
- ◆ Dr. from the UCM with which he obtained the European Mention and the Extraordinary Doctorate Award
- ◆ Master's Degree in Veterinary Science Research
- ◆ Assistant Professor of the Department of Animal Medicine and Surgery, Universidad Complutense de Madrid (UCM)
- ◆ Collaborator in Practical Teaching in the Department of Animal Medicine and Surgery (UCM)
- ◆ Assistant Professor of the Department of Animal Medicine and Surgery of the UCM
- ◆ Regular speaker at courses, workshops and congresses in the field of Equine Diagnostic Imaging

**Dr. Marín Baldo Vink, Alexandra**

- ◆ Head of the large animal hospitalization service at the Clinical Veterinary Hospital of Alfonso X El Sabio University
- ◆ Degree in Veterinary Medicine from the University of Murcia
- ◆ Completed the first course of the third cycle. Currently approved Postgraduate Certificate of Advanced Studies. Animal Medicine and Reproduction. University of Murcia
- ◆ Equine Hospitalization Service of the Veterinary Clinic Hospital of the Alfonso X El Sabio University
- ◆ Professor at the Faculty of Veterinary Medicine, Alfonso X El Sabio University
- ◆ Training stays in several hospitals in Spain in the field of large Animals
- ◆ Fellowship in the Department of Equine Surgery and Large Animals Veterinary Hospital of the University of Murcia

04

# Structure and Content

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

A complete and well-structured program that will take you 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. Digestive System

- 1.1. Approach to Acute Abdominal Syndrome Evaluation. Treatment Decision
  - 1.1.1. Introduction
    - 1.1.1.1. Epidemiology of Colic and Predisposing Factors
    - 1.1.1.2. Categorization of Diseases Causing Colicky Conditions
  - 1.1.2. General Screening Methods
    - 1.1.2.1. Medical History
    - 1.1.2.2. Assessment of General Condition and Degree of Pain
    - 1.1.2.3. Measurement of Vital Signs, Degree of Dehydration, Degree of Tissue Perfusion and State of Mucous Membranes
    - 1.1.2.4. Auscultation, Palpation and Percussion of the Abdomen
    - 1.1.2.5. Rectal Examination
    - 1.1.2.6. Nasogastric Catheterization
  - 1.1.3. Advanced Diagnostic Methods
    - 1.1.3.1. Blood Biopathology in the Diagnosis of Colic
    - 1.1.3.2. Abdominocentesis
    - 1.1.3.3. Ultrasound, Radiology, Endoscopy
  - 1.1.4. Treatment Decision: Medical or Surgical? When to Refer?
- 1.2. Diagnostic Imaging of the Digestive System in the Field
  - 1.2.1. Introduction to Diagnostic Imaging in the Field
  - 1.2.2. Technical Basis
    - 1.2.2.1. Radiology
    - 1.2.2.2. Ultrasound
  - 1.2.3. Oral Pathology
  - 1.2.4. Esophageal Pathology
  - 1.2.5. Abdominal Pathology
    - 1.2.5.1. Digestive System
      - 1.2.5.1.1. Stomach
      - 1.2.5.1.2. Small Intestine
      - 1.2.5.1.3. Large Intestine
    - 1.2.5.2. Peritoneal Cavity
- 1.3. Oral cavity Examination Exodontia
  - 1.3.1. Exploration of the Head
  - 1.3.2. Oral Cavity Examination
  - 1.3.3. Regional Nerve Blocks for Surgery and Dental Extractions
    - 1.3.3.1. Maxillary Nerve
    - 1.3.3.2. Mandibular Nerve
    - 1.3.3.3. Infraorbital Nerve
    - 1.3.3.4. Mental Nerve
  - 1.3.4. Exodontia: Indications and Techniques
- 1.4. Malocclusions. Tumors. Maxillary and Mandibular Fractures Temporomandibular Joint Pathology
  - 1.4.1. Malocclusions. Filing
    - 1.4.1.1. Wear Alterations
  - 1.4.2. Tumors. Classification
  - 1.4.3. Maxillary and Mandibular Fractures Repairation
  - 1.4.4. Temporomandibular Joint Pathology
    - 1.4.4.1. Alterations and Clinical Signs
    - 1.4.4.2. Examination and Diagnosis
    - 1.4.4.3. Treatment and Prognosis
- 1.5. Diseases of the Esophagus and Stomach
  - 1.5.1. Oesophageal
    - 1.5.1.1. Esophageal Obstruction
    - 1.5.1.2. Oesophagitis
    - 1.5.1.3. Other Esophageal Alterations
  - 1.5.2. Stomach
    - 1.5.2.1. Gastric Ulcers
    - 1.5.2.2. Gastric Impaction
    - 1.5.2.3. Squamous Cell Carcinoma
    - 1.5.2.4. Other Stomach Alterations



- 1.6. Small Intestine Diseases
  - 1.6.1. Simple Obstruction
  - 1.6.2. Proximal Enteritis
  - 1.6.3. Inflammatory Bowel Disease
  - 1.6.4. Intestinal Lymphoma
  - 1.6.5. Strangulating Alterations
  - 1.6.6. Small Intestinal Alterations
- 1.7. Large Intestinal Diseases
  - 1.7.1. Impactions
    - 1.7.1.1. Large Colon
    - 1.7.1.2. Cecum
    - 1.7.1.3. Minor Colon
  - 1.7.2. Large Colon Displacement
  - 1.7.3. Colitis
  - 1.7.4. Peritonitis
  - 1.7.5. Enterolithiasis
  - 1.7.6. Other Large Intestinal Alterations
- 1.8. Liver and Biliary Tract Diseases
  - 1.8.1. Approach to the Patient with Liver Disease
  - 1.8.2. Acute Liver Failure
  - 1.8.3. Cholangiohepatitis
  - 1.8.4. Chronic Hepatitis
  - 1.8.5. Neoplasms
  - 1.8.6. Other Liver and Biliary Tract Alterations
- 1.9. Infectious and Parasitic Diseases of the Digestive Tract
  - 1.9.1. Infectious Diseases of the Digestive Tract
    - 1.9.1.1. Salmonellosis
    - 1.9.1.2. Proliferative Enteropathy
    - 1.9.1.3. Clostridiosis
    - 1.9.1.4. Rotavirus
    - 1.9.1.5. Potomac Equine Fever
    - 1.9.1.6. Equine Coronavirus



- 1.9.2. Parasitic Diseases of the Digestive Tract
  - 1.9.2.1. Gastrointestinal Myiasis
  - 1.9.2.2. Intestinal Protozoa
  - 1.9.2.3. Intestinal Cestodes
  - 1.9.2.4. Intestinal Nematodes
- 1.10. Treatment of Medical Colic in the Field
  - 1.10.1. Management of the Patient with Colicky Pain
  - 1.10.2. Pain Control in Colicky Patients
  - 1.10.3. Fluid Therapy and Cardiovascular Support
  - 1.10.4. Treatment for Endotoxemia

## Module 2. Cardio-Respiratory and Vascular System

- 2.1. Clinical Assessment of the Respiratory System and Diagnostic Methods
  - 2.1.1. Examination of the Respiratory System
  - 2.1.2. Respiratory Tract Sampling
    - 2.1.2.1. Samples from Nasal Cavity, Pharynx and Guttural Pouches
    - 2.1.2.2. Tracheal Aspirate and Bronchoalveolar Lavage
    - 2.1.2.3. Thoracentesis
  - 2.1.3. Endoscopy
    - 2.1.3.1. Static and Dynamic Endoscopy of Upper Airways
    - 2.1.3.2. Sinuscopy
  - 2.1.4. Radiology
    - 2.1.4.1. Nasal Cavity, Sinuses and Guttural Pouches
    - 2.1.4.2. Larynx and Trachea
  - 2.1.5. Ultrasound
    - 2.1.5.1. Ultrasound Techniques
    - 2.1.5.2. Pleural Effusion
    - 2.1.5.3. Atelectasis, Consolidation and Masses
    - 2.1.5.4. Pneumothorax
- 2.2. Diseases of the Upper Respiratory Tract I (Nose, Nasal Cavity and Paranasal Sinuses)
  - 2.2.1. Diseases and Pathologies Affecting the Rostral/Larynxes Area
    - 2.2.1.1. Clinical Introduction and Diagnosis
    - 2.2.1.2. Atheroma-Epidermal Inclusion Cyst
      - 2.2.1.2.1. Treatment
    - 2.2.1.3. Redundant Wing Fold
      - 2.2.1.3.1. Treatment
  - 2.2.2. Diseases and Pathologies Affecting the Nasal Cavity
    - 2.2.2.1. Diagnostic Techniques
    - 2.2.2.2. Nasal Septum Pathologies
    - 2.2.2.3. Ethmoidal Hematoma
  - 2.2.3. Diseases and Pathologies Affecting the Paranasal Sinuses
    - 2.2.3.1. Clinical Presentation and Diagnostic Techniques
    - 2.2.3.2. Sinusitis
      - 2.2.3.2.1. Primary Sinusitis
      - 2.2.3.2.2. Secondary Sinusitis
    - 2.2.3.3. Paranasal Sinus Cyst
    - 2.2.3.4. Paranasal Sinus Neoplasia
  - 2.2.4. Approaches to the Paranasal Sinus
    - 2.2.4.1. Trepanation Anatomical References and Technique
    - 2.2.4.2. Synocentesis
    - 2.2.4.3. Sinuscopy
    - 2.2.4.4. Flaps or Bone Flaps of the Paranasal Sinuses
    - 2.2.4.5. Associated Complications
- 2.3. Diseases of the Upper Tract II (Larynx and Pharynx)
  - 2.3.1. Diseases and Pathologies Affecting the Pharynx-Nasopharynx
    - 2.3.1.1. Anatomical Pathologies
      - 2.3.1.1.1. Nasopharyngeal Scar Tissue
      - 2.3.1.1.2. Nasopharyngeal Masses
      - 2.3.1.1.3. Treatment
    - 2.3.1.2. Functional Pathologies
      - 2.3.1.2.1. Dorsal Displacement of the Soft Palate (DDSP)
        - 2.3.1.2.1.1. Intermittent DDSP
        - 2.3.1.2.1.2. Permanent DDSP
        - 2.3.1.2.1.3. Surgical and Non-Surgical Treatments
      - 2.3.1.2.2. Rostral Pharyngeal Collapse
      - 2.3.1.2.3. Dorsal/Lateral Nasopharyngeal Collapse



- 2.3.1.3. Nasopharyngeal Pathologies in Foals
  - 2.3.1.3.1. Choanal Atresia
  - 2.3.1.3.2. Cleft Palate
  - 2.3.1.3.3. Nasopharyngeal Dysfunction
- 2.3.2. Diseases and Pathologies Affecting the Larynx
  - 2.3.2.1. Recurrent Laryngeal Neuropathy (Laryngeal Hemiplegia)
    - 2.3.2.1.1. Diagnosis
    - 2.3.2.1.2. Gradation
    - 2.3.2.1.3. Treatment and Associated Complications
  - 2.3.2.2. Vocal Cord Collapse
  - 2.3.2.3. Bilateral Laryngeal Paralysis
  - 2.3.2.4. Cricopharyngeal-Laryngeal Dysplasia (Fourth Branchial Arch Defects)
  - 2.3.2.5. Collapse of the Apex of the Corniculate Process
  - 2.3.2.6. Medial Deviation of the Aryepiglottic Folds
  - 2.3.2.7. Chondropathy of the Arytenoid Cartilage
  - 2.3.2.8. Pathologies in the Mucosa of the Arytenoid Cartilages
  - 2.3.2.9. Pathologies Affecting the Epiglottis
    - 2.3.2.9.1. Epiglottic Entrapment
    - 2.3.2.9.2. Acute Epiglottitis
    - 2.3.2.9.3. Subepiglottic Cyst
    - 2.3.2.9.4. Subepiglottic Granuloma
    - 2.3.2.9.5. Dorsal Epiglottic Abscess
    - 2.3.2.9.6. Hypoplasia, Flaccidity, Deformity of Epiglottis
    - 2.3.2.9.7. Epiglottic Retroversion
- 2.4. Diseases of Guttural Pouches and Trachea Tracheostomy
  - 2.4.1. Diseases and Pathologies Affecting the Guttural Pouches
    - 2.4.1.1. Tympanism
      - 2.4.1.1.1. Functional Nasopharyngeal Obstruction in Adults
    - 2.4.1.2. Empyema
    - 2.4.1.3. Mycosis
    - 2.4.1.4. Trauma-Rupture of the Ventral Rectus Muscles
    - 2.4.1.5. Osteoarthropathy of the Temporohyoid Joint
    - 2.4.1.6. Other Pathologies
  - 2.4.2. Diseases and Pathologies Affecting the Trachea
    - 2.4.2.1. Trauma
    - 2.4.2.2. Tracheal Collapse
    - 2.4.2.3. Tracheal Stenosis
    - 2.4.2.4. Foreign Bodies
    - 2.4.2.5. Intraluminal Masses
  - 2.4.3. Tracheal Surgeries
    - 2.4.3.1. Tracheostomy and Tracheostomy (Temporary)
    - 2.4.3.2. Permanent Tracheostomy
    - 2.4.3.3. Other Tracheal Surgeries
- 2.5. Inflammatory Diseases of the Lower Respiratory Tract
  - 2.5.1. Introduction: Functionality of the Lower Respiratory Tract
  - 2.5.2. Equine Asthma
    - 2.5.2.1. Etiology and Classification
    - 2.5.2.2. Epidemiology
    - 2.5.2.3. Classification
    - 2.5.2.4. Pathophysiology
    - 2.5.2.5. Clinical Signs
    - 2.5.2.6. Diagnostic Techniques
    - 2.5.2.7. Therapy Options
    - 2.5.2.8. Prognosis
    - 2.5.2.9. Prevention
  - 2.5.3. Exercise-Induced Pulmonary Hemorrhage
    - 2.5.3.1. Etiology
    - 2.5.3.2. Epidemiology
    - 2.5.3.3. Pathophysiology
    - 2.5.3.4. Clinical Signs
    - 2.5.3.5. Diagnostic Techniques
    - 2.5.3.6. Therapy Options
    - 2.5.3.7. Prognosis

- 2.6. Bacterial and Fungal Infectious Diseases of the Respiratory Tract
  - 2.6.1. Equine Mumps *Streptococcus* Equine Infection
  - 2.6.2. Bacterial Pneumonia and Pleuropneumonia
  - 2.6.3. Fungal Pneumonia
- 2.7. Pneumonias of Mixed Origin Viral Infectious Diseases of the Respiratory Tract and Tumors
  - 2.7.1. Interstitial Pneumonia and Pulmonary Fibrosis
  - 2.7.2. Equine Herpesvirus I, IV and V
  - 2.7.3. Equine Influenza
  - 2.7.4. Tumours of the Respiratory System
- 2.8. Exploration of the Cardiovascular System, Electrocardiography and Echocardiography
  - 2.8.1. Anamnesis and Clinical Examination
  - 2.8.2. Basic Principles of Electrocardiography
  - 2.8.3. Electrocardiography Types
  - 2.8.4. Electrocardiogram Interpretation
  - 2.8.5. Basic Principles of Echocardiography
  - 2.8.6. Echocardiographic Planes
- 2.9. Structural Cardiac Alterations
  - 2.9.1. Congenital
    - 2.9.1.1. Ventricular Septal Defect
  - 2.9.2. Acquired
    - 2.9.2.1. Aortic Insufficiency
    - 2.9.2.2. Mitral Insufficiency
    - 2.9.2.3. Tricuspid Regurgitation
    - 2.9.2.4. Aorto-Cardiac Fistula
- 2.10. Arrhythmias
  - 2.10.1. Supraventricular Arrhythmias
  - 2.10.2. Ventricular Arrhythmias
  - 2.10.3. Conduction Disturbances



## Module 3. Reproductive and Urinary System

- 3.1. Urinary System Assessment
  - 3.1.1. Hematological and Biochemical Parameters Related to the Renal System
  - 3.1.2. Urinalysis
  - 3.1.3. Diagnostic Methods in the Urinary System
    - 3.1.3.1. Ultrasound of the Urinary System
    - 3.1.3.2. Endoscopy of the Urinary System
    - 3.1.3.3. Renal Biopsy
    - 3.1.3.4. Water Deprivation Test
- 3.2. Urinary System Pathologies
  - 3.2.1. Acute Renal Failure
    - 3.2.1.1. Causes of Acute Renal Insufficiency
    - 3.2.1.2. Treatment of Acute Renal Insufficiency
  - 3.2.2. Chronic Renal Failure
    - 3.2.2.1. Causes of Chronic Renal Insufficiency
    - 3.2.2.2. Treatment of Chronic Renal Insufficiency
  - 3.2.3. Urinary Tract Infections
    - 3.2.3.1. Urethritis, Cystitis, Pyelonephritis and their Treatment
    - 3.2.3.2. Treatment of Urinary Tract Infections
  - 3.2.4. Obstructive Pathology of the Urinary Tract
    - 3.2.4.1. Obstructive Pathology Types
    - 3.2.4.2. Treatment
  - 3.2.5. Polyuria and Polydipsia
  - 3.2.6. Urinary Incontinence and Bladder Dysfunction
  - 3.2.7. Urinary Tract Tumors
- 3.3. Medical Pathologies of the Male Genitalia
  - 3.3.1. Introduction to the Medical Pathology of the Stallion
  - 3.3.2. Testicular Pathology in the Stallion
    - 3.3.2.1. Handling and Treatment of the Cryptorchid Stallion
    - 3.3.2.2. Testicular Inflammatory Disorders
    - 3.3.2.3. Management of Testicular Degeneration in the Stallion
    - 3.3.2.4. Hydrocele Management
    - 3.3.2.5. Testicular Neoplasms in the Stallion
    - 3.3.2.6. Testicular Torsion in the Stallion
  - 3.3.3. Penile Pathologies
    - 3.3.3.1. Penile Trauma Management
    - 3.3.3.2. Penile Tumor Developments
    - 3.3.3.3. Paraphimosis
    - 3.3.3.4. Priapism
  - 3.3.4. Pathology of Adnexal Glands
    - 3.3.4.1. Ultrasound and Assessment of Adnexal Glands
    - 3.3.4.2. Vesiculitis, Management and Treatment
    - 3.3.4.3. Adnexal Gland Obstruction
  - 3.3.5. Ejaculate Alterations
    - 3.3.5.1. Seminal Assessment
    - 3.3.5.2. Factors Affecting Fertility
    - 3.3.5.3. Sub-fertile Semen Management
      - 3.3.5.3.1. Semen Centrifugation for Quality Improvement
      - 3.3.5.3.2. Seminal Plasma Substitution
      - 3.3.5.3.3. Semen Filtration to Improve Quality
      - 3.3.5.3.4. Low-Quality Semen Cooling Protocols
  - 3.3.6. Alterations in Stallion Behavior and Mating Management
  - 3.3.7. Advances in Assisted Reproduction in Stallions
    - 3.3.7.1. Seminal Freezing
    - 3.3.7.2. Epididymal Sperm Retrieval after Death or Castration
- 3.4. Male Field Surgical Procedures
  - 3.4.1. Castration
    - 3.4.1.1. Introduction and Considerations of Castration in Males
      - 3.4.1.1.1. Patient Selection
    - 3.4.1.2. Castration Surgical Techniques
      - 3.4.1.2.1. Open Castration
      - 3.4.1.2.2. Closed Castration
      - 3.4.1.2.3. Semi-Closed or Semi-Open Castration

- 3.4.1.3. Variations in Surgical Technique
    - 3.4.1.3.1. Different Hemostasis Options
    - 3.4.1.3.2. Primary Skin Closure
  - 3.4.1.4. On-Station Castration Considerations
    - 3.4.1.4.1. Sedation
  - 3.4.1.5. Considerations for Castration under General Anesthetic
  - 3.4.1.6. Inguinal Cryptorchidism
    - 3.4.1.6.1. Presurgical Diagnosis
    - 3.4.1.6.2. Surgical Technique
  - 3.4.2. Penile Amputation
    - 3.4.2.1. Indications
    - 3.4.2.2. Post-Surgical Procedure and Considerations
  - 3.5. Medical and Surgical Pathologies of the Female Genitalia I
    - 3.5.1. Medical Pathologies I
      - 3.5.1.1. Ovarian Pathology
        - 3.5.1.1.1. Ovulation Disorders
        - 3.5.1.1.2. Ovarian Tumors
      - 3.5.1.2. Fallopian Tubes Disorders
      - 3.5.1.3. Medical Uterine Pathology
        - 3.5.1.3.1. Preparation and Procedure for Sample Collection
          - 3.5.1.3.1.1. Cytology
          - 3.5.1.3.1.2. Biopsy
        - 3.5.1.3.2. Types of Endometritis
        - 3.5.1.3.3. Management of the Mare with Uterine Fluid
        - 3.5.1.3.4. Management of Mares with Uterine Cysts
  - 3.5.1.2. Fallopian Tubes Disorders
  - 3.5.1.3. Medical Uterine Pathology
    - 3.5.1.3.1. Preparation and Procedure for Sample Collection
      - 3.5.1.3.1.1. Cytology
      - 3.5.1.3.1.2. Biopsy
    - 3.5.1.3.2. Types of Endometritis
    - 3.5.1.3.3. Management of the Mare with Uterine Fluid
    - 3.5.1.3.4. Management of Mares with Uterine Cysts
- 3.6. Medical and Surgical Genital Pathologies of the Mare II
  - 3.6.1. Medical Pathologies II
    - 3.6.1.1. Cervical Pathology
      - 3.6.1.1.1. Cervical Lacerations
      - 3.6.1.1.2. Cervical Adherences
    - 3.6.1.2. Medical Pathology of the Vagina
    - 3.6.1.3. Reproductive Management of the Geriatric Mare
    - 3.6.1.4. Update on Assisted Reproduction in the Mare
- 3.6.2. Surgical Pathologies of the Mare
  - 3.6.2.1. Normal Vulvar Conformation of the Mare
    - 3.6.2.1.1. Vulvar Examination of the Mare
    - 3.6.2.1.2. Caslick Index
  - 3.6.2.2. Vulvoplasty
    - 3.6.2.2.1. Caslick Surgery Procedure
- 3.7. Pregnant Mare and Care at Foaling
  - 3.7.1. Mare Gestation
    - 3.7.1.1. Diagnosis of Pregnancy in the Mare
    - 3.7.1.2. Management of Early and Late Multiple Gestation New Techniques
    - 3.7.1.3. Embryo Sexing
  - 3.7.2. Complications During Gestation in the Mare
    - 3.7.2.1. Abortion
      - 3.7.2.1.1. Early Abortion
      - 3.7.2.1.2. Late Abortion
    - 3.7.2.2. Uterine Torsion
    - 3.7.2.3. Management and Treatment of Placentitis
    - 3.7.2.4. Management of Placental Abruption
  - 3.7.3. Nutritional Needs of the Pregnant Mare
  - 3.7.4. Ultrasound Evaluation of the Fetus
    - 3.7.4.1. Ultrasound Evaluation at Different Stages of Gestation
    - 3.7.4.2. Fetal Biometry
  - 3.7.5. Methods for Predicting Foaling in the Full-Term Mare
  - 3.7.6. Euthyroid Labor and Delivery
    - 3.7.6.1. Phases of Euthyroid Labor and Delivery
- 3.8. Complications of Childbirth and Postpartum Care
  - 3.8.1. Dystocic Labor and Delivery
    - 3.8.1.1. Material Necessary for the Resolution of Dystocia
    - 3.8.1.2. Types of Dystocia and Management of Different Fetal Presentations
  - 3.8.2. Peripartum Surgical Emergencies
    - 3.8.2.1. Fetotomy
      - 3.8.2.1.1. Fetotome
      - 3.8.2.1.2. Preparation of the Mare for the Procedure
      - 3.8.2.1.3. Fetotomy in the Field Vs. In the Hospital



- 3.8.2.2. Cesarean Section
- 3.8.2.3. Hemorrhage of the Ankle Ligament
- 3.8.2.4. Uterine Laceration
- 3.8.2.5. Prepubic Tendon Rupture
- 3.8.2.6. Rectovaginal Fistula
- 3.8.3. Postpartum Care
  - 3.8.3.1. Control of Uterine Involution and Establishment of the Postpartum Cycle
- 3.8.4. Postpartum Complications
  - 3.8.4.1. Placenta Retention
  - 3.8.4.2. Vaginal Lacerations
  - 3.8.4.3. Uterine Bleeding
  - 3.8.4.4. Uterine Prolapse
  - 3.8.4.5. Rectal Prolapse
  - 3.8.4.6. Vulvar Hematoma
  - 3.8.4.7. Uterine Horn Invagination
- 3.9. Repair of Tears and Lacerations during Labor and Delivery
  - 3.9.1. Management of Vulvar Tears and Lacerations during Labor and Delivery
  - 3.9.2. Classification of Perineal Lacerations
  - 3.9.3. Reconstruction of the Perineal Body
    - 3.9.3.1. Surgical Preparation of the Mare
    - 3.9.3.2. Vaginal Vestibule Sphincter Insufficiency
      - 3.9.3.2.1. Perineal Body Reconstruction, Vestibuloplasty
      - 3.9.3.2.2. Perineal Body Transverse Section, Perineoplasty
        - 3.9.3.2.2.1. Pouret's Surgery
    - 3.9.3.3. Postoperative Care
    - 3.9.3.4. Complications of Perineal Surgery
  - 3.9.4. Surgical Management of Third-Degree Rectovaginal Tearing
  - 3.9.5. Surgical Management of Rectovaginal Fistulas
- 3.10. Infectious and Parasitic Diseases of the Reproductive System in Equines
  - 3.10.1. Introduction to Infectious and Parasitic Diseases of the Reproductive System in Equines
  - 3.10.2. Economic and Productive Significance of Infectious and Parasitic Diseases

- 3.10.3. Infectious Diseases of the Reproductive Tract
  - 3.10.3.1. Mycoplasmas
  - 3.10.3.2. Contagious Equine Metritis Procedure of Sample Collection for the Determination of Contagious Equine Metritis
  - 3.10.3.3. Equine Viral Arteritis
  - 3.10.3.4. Equine Rhinopneumonitis
  - 3.10.3.5. Leptospirosis
  - 3.10.3.6. Brucellosis
- 3.10.4. Parasitic Diseases of the Reproductive Tract
  - 3.10.4.1. Habronemiasis
  - 3.10.4.2. Durina



*A unique, key and decisive training experience to boost your professional development*

# 05 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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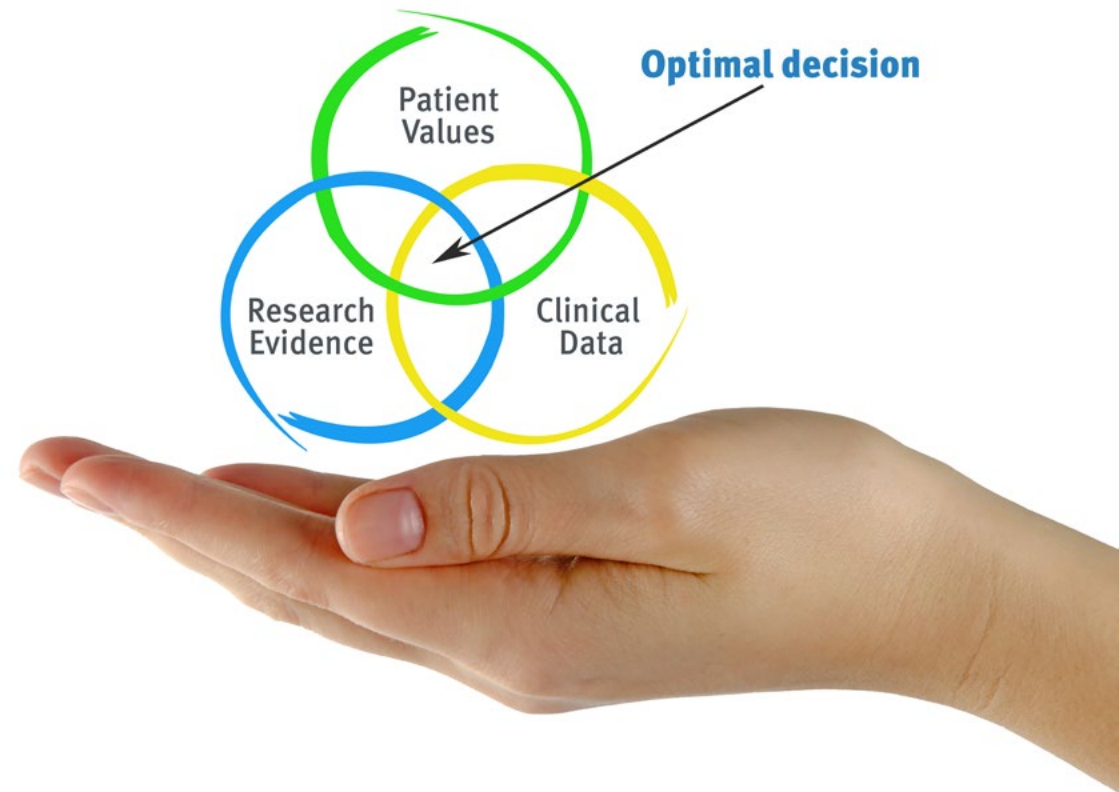
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## 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. Gérvas, 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.

“

*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:

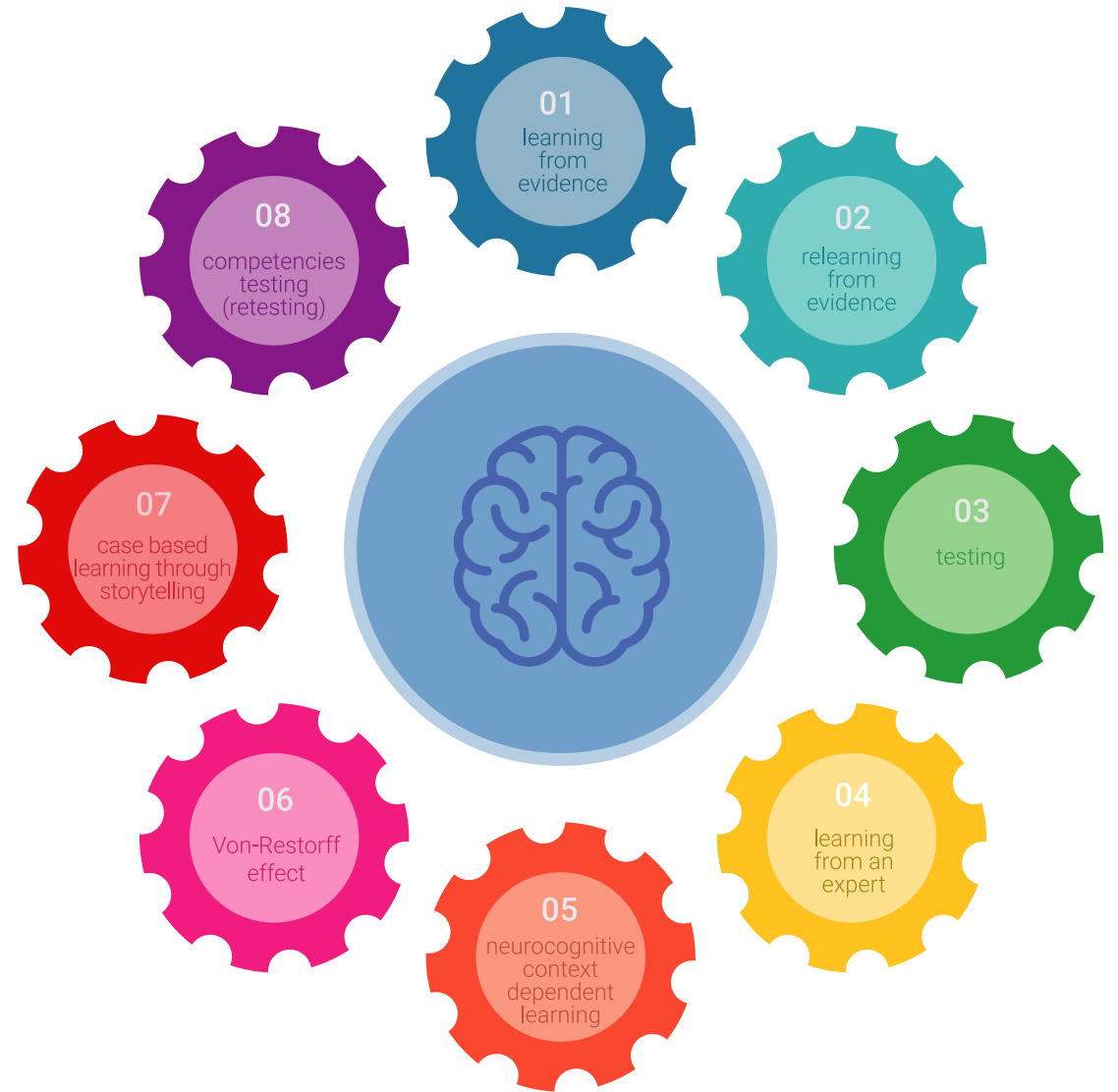
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real 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.





# 06 Certificate

The Postgraduate Diploma in Horse Vital Systems guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.





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*Successfully complete this program and receive your university degree without travel or laborious paperwork”*

This **Postgraduate Diploma in Horse Vital Systems** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Horse Vital Systems**

Official N° of hours: **450 h.**



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



## Postgraduate Diploma Horse Vital Systems

- » Course Modality: Online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Official N° of hours: 450 h.

# Postgraduate Diploma Horse Vital Systems

