Postgraduate Diploma

Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients

tech technological university

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Postgraduate Diploma

Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/pk/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-hospital-care-equine-patients-neurological-musculoskeletal-pathologies-surgical-patients

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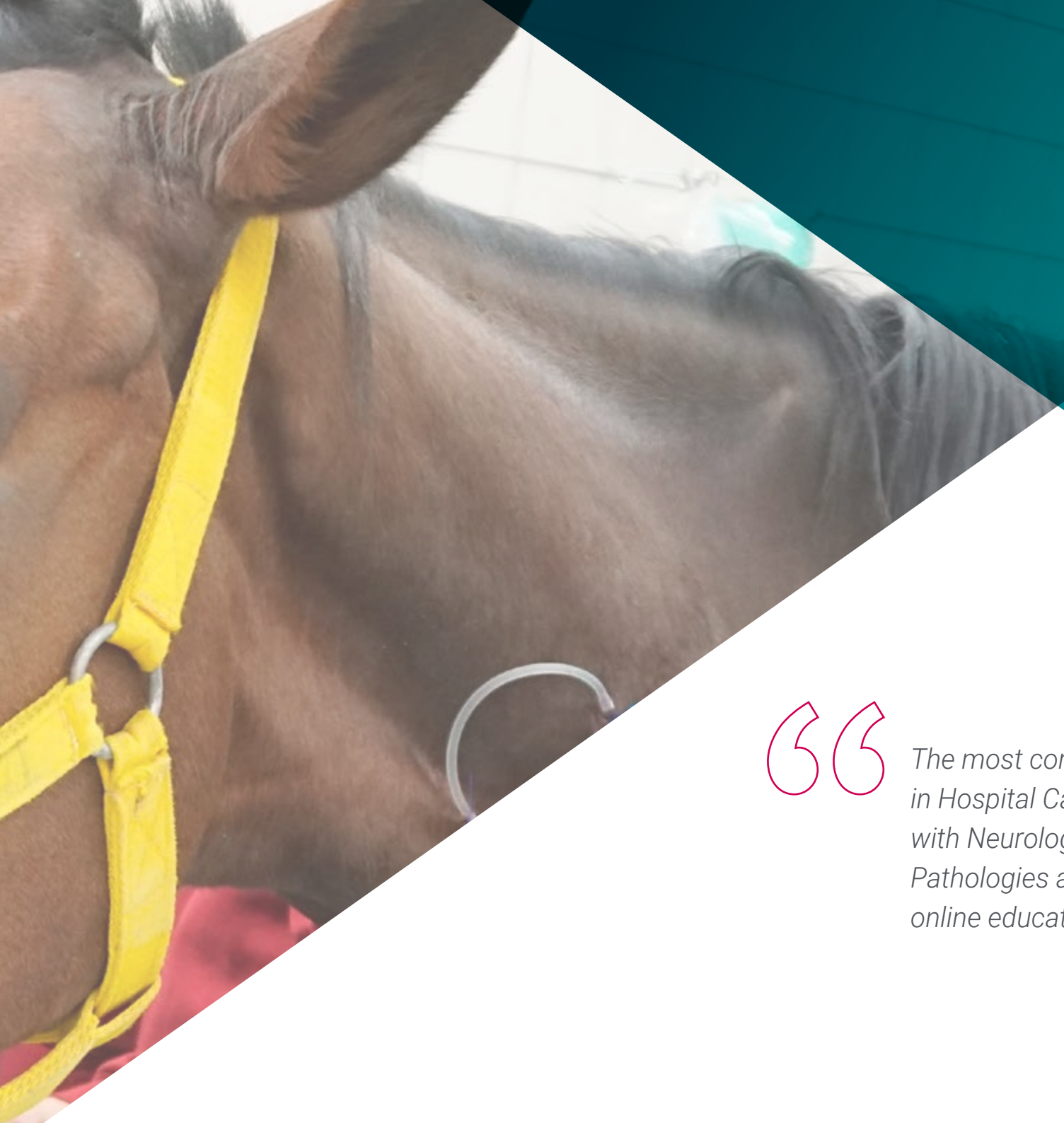
01

Introduction

This is a high-quality scientific program that will allow you to achieve the highest level of specialization and up-to-date knowledge in this field. It will cover all aspects of neurological and muscular problems, which are very frequent in the hospital setting, especially in acute and over-acute conditions that require emergency veterinary care. It will discuss, in-depth, the hospital care of equine patients, a fundamental part in the successful outcome of the surgical procedure performed when it has been carried out electively. A high-quality scientific program that will drive you to the highest levels of competence in the industry.



The most complete and updated program in Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients on the online educational market"

This Postgraduate Diploma lays the foundations for a specialization in Equine Hospital Medicine. It defines the logistics and clinical strategy required in a hospital for horses. It addresses various topics, extremely necessary in order to acquire a global idea of how an equine hospital works and to consider the hospitalization of any patient regardless of their main pathology.

It describes the layout of the different facilities and establishes the necessary guidelines for the cleaning and disinfection of different areas in relation to their degree of contamination by the patients treated in each one. Develop specialized knowledge on advanced pharmacology for hospitalized patients. This program establishes the ideal pharmacological guidelines, antibiotherapy and multimodal analgesia applicable to each patient depending on their severity, which differs greatly from the approach used in field clinics.

Due to the severity of the clinical symptoms presented by most hospitalized patients, it is necessary to establish specific guidelines for fluid therapy and nutrition according to the stabilization requirements and metabolic needs of each patient.

Finally, in the first section of the program, the interpretation of blood count, serum biochemistry and blood gas analysis is discussed as it is very important to establish the severity of hospitalized patients. These diagnostic methods will also be key to monitoring the patients during the hospitalization period.

It is very common that during the hospitalization of equine patients, complications appear in the evolution of the pathological process being treated, so it is essential to identify these complications quickly and implement appropriate treatments for a satisfactory outcome.

The doctor's ability to respond in critical situations during the hospitalization of equine patients will be essential for the prognosis of the pathological process and even crucial for survival, since when these complications are potentially fatal, such as a laryngeal collapse or post-castration eventration, the doctor's actions will be very important.

This **Postgraduate Diploma in Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients** 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 educational training and open new paths to help you advance in your professional progress"

A complete scientific program that will allow you to acquire the most advanced knowledge in all the areas of intervention of the equine veterinarian"

With the experience of working professionals and the analysis of real success stories, in a high-impact educational approach.

Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: Learning from an expert.

TECH's teaching staff is made up of professionals from different fields related to this specialty. In this way TECH ensures that it delivers the educational up-to-date objectives that it aims for. A multidisciplinary team of professionals, experienced in different fields, will develop the theoretical knowledge in an efficient manner, but, above all, will provide students 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 operability you need during the program.

The design of this scientific 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 knowledge and skills 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.

02

Objectives

The objective is to train 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, can be achieved with high intensity and effective instruction.

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

- 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 treatment of other primary pathologies
- Examine analytical interpretation: blood count, serum biochemistry and blood gas analysis
- 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
- 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

Specific Objectives

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. 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

Module 3. Surgical Patient Hospital Care and Emergency Hospital Procedures

- Detail non-exercise related muscle diseases and establish appropriate medical treatments and management therapies
- 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

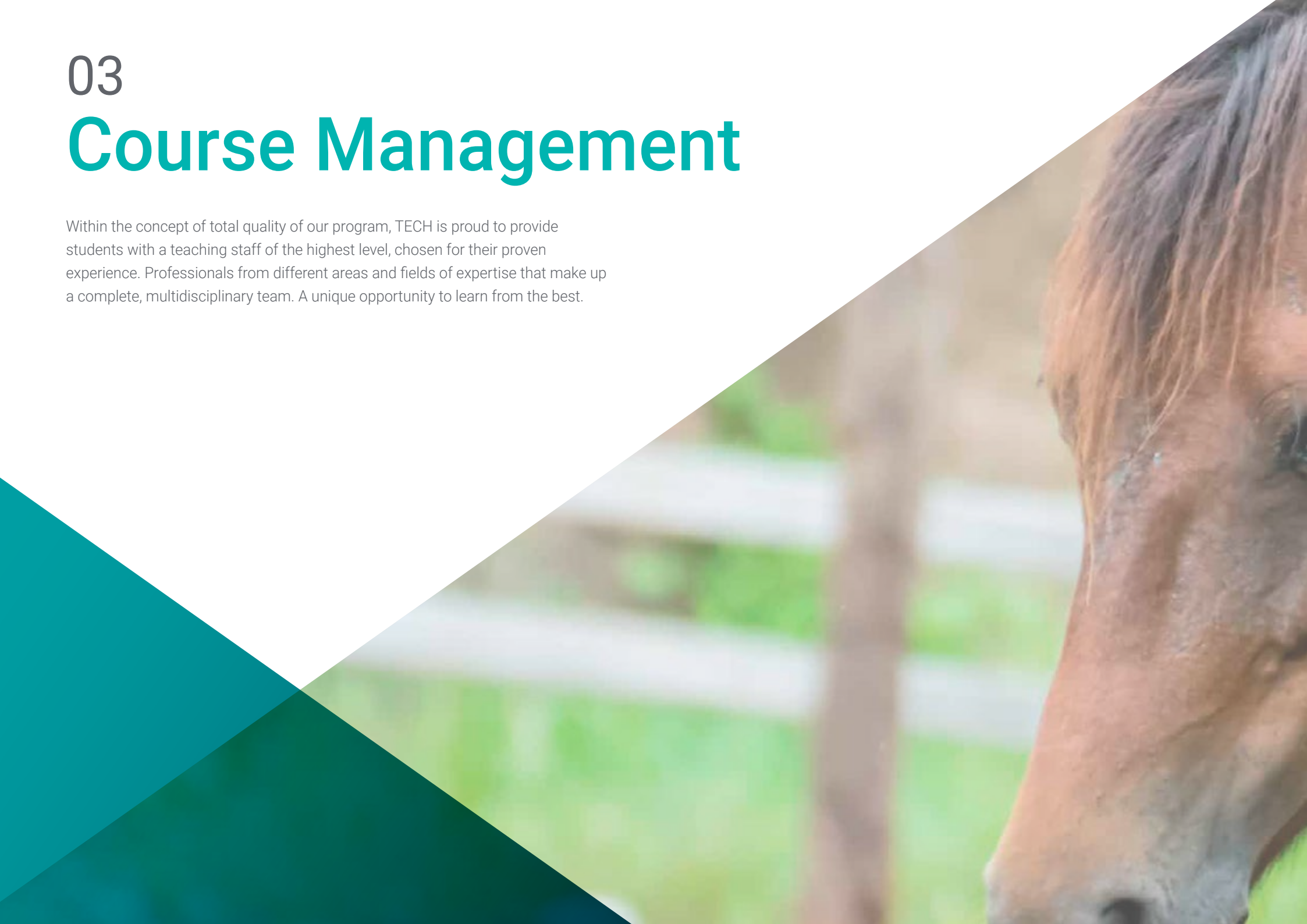
- Determine when to use synovial needle lavage and when to use arthroscopy, using up-to-date knowledge of synovial fluid monitoring and imaging methods
- Develop optimal rehabilitation plans for angular or flexural deformities
- Demonstrate a biomechanical knowledge of the shoeing techniques used in 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

A path to achieve knowledge 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, 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.



An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: 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 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
- 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
- Graduate of the American College of Veterinary Sports Medicine and Rehabilitation (ACVSMR)
- 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
- Responsible for the Postgraduate Professional Master's Degree in Sports Medicine and Equine Surgery, Alfonso X El Sabio University

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, Hospital Clínico Veterinario de la Universidad de Extremadura

Dr. Martin 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

04

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 well-structured scientific program that will drive you to the highest levels of success and quality.

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. Piroplasmosis
  - 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

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 Reaction
1.10.2.2. Hemorrhagic Purpura
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. Neurological and Muscular Problems in Hospitalized Patients

2.1. Evaluation of the Nervous System. Anatomical Location of the Injury
- 2.1.1. Stationary Neurological Examination
- 2.1.2. Examination in Motion
- 2.1.3. Injury Localization

2.2. Complementary Methods in Neurological Pathologies
- 2.2.1. Cerebrospinal Fluid: Collection and Analysis
- 2.2.2. Diagnostic Imaging; Radiology, Myelography and Magnetic Resonance Imaging (MRI)
- 2.2.3. Electromyography and Electroencephalography
- 2.2.4. Laboratory Tests

2.3. Hospital Management of Neurological Patients
- 2.3.1. Medical and Supportive Management of the Neurological Horse
- 2.3.2. Specific Management of the Recumbent Horse

2.4. Neurological Pathologies I. Cranial Pathologies
- 2.4.1. Meningitis
- 2.4.2. Cranioencephalic Trauma
- 2.4.3. Cranial Nerve Disorders
- 2.4.4. Cerebellum Pathologies
- 2.4.5. Epilepsy

2.5. Neurological Pathology II. Spinal Pathologies
- 2.5.1. Cervical Stenotic Myelopathy
- 2.5.2. Atlanto-Occipital Malformation
- 2.5.3. Trauma/Luxation
- 2.5.4. Cervical Osteomyelitis
- 2.5.5. Tetanus

2.6. Neurological Pathology III. Peripheral Nerve and Neuromuscular Pathologies
- 2.6.1. Botulism
- 2.6.2. Motor Neuron Disease
- 2.6.7. Peripheral Neuropathies

2.7. Multifocal Neurologic Pathologies
- 2.7.1. Myeloencephalopathy
- 2.7.2. Dysautonomia
- 2.7.3. Myeloencephalopathy due to Herpesvirus
- 2.7.4. Protozoal Myeloencephalopathy
- 2.7.5. Verminous Myeloencephalopathy
- 2.7.6. Polyneuritis or Cauda Equina Neuritis
- 2.7.7. Rabies
- 2.7.8. West Nile Virus

2.8. Evaluation and Diagnostic Methods of Muscular Pathologies
- 2.8.1. Physical Examination
- 2.8.2. Analytical and Urinalysis Alterations
- 2.8.3. Muscle Biopsy
- 2.8.4. Electromyography

2.9. Muscular Pathologies Related to Exertion
- 2.9.1 Rhabdomyolysis
  - 2.9.1.1 Sporadic Rhabdomyolysis
  - 2.9.1.2. Recurring Rhabdomyolysis
- 2.9.2. Traumatic Myopathies
- 2.9.3. Electrolyte Disorders
- 2.9.4. Mitochondrial Enzyme Deficiency
- 2.9.5. Deficiencies Associated with Glycogen Storage

2.10. Myopathies Not Associated with Exercise
- 2.10.1 Inflammatory, Infectious and Immune-mediated Myopathies
- 2.10.2. Toxic and Hormonal Myopathies
- 2.10.3. Nutritional Myopathies
- 2.10.4. Circulatory Myopathies: Postanesthesia and Thromboembolic
- 2.10.5. Malignant Hyperthermia
- 2.10.6. Muscle Tone Disorders: Myotonias
  - 2.10.6.1. Hyperkalemic Periodic Paralysis

Module 3. Surgical Patient Hospital Care and Emergency Hospital Procedures

3.1. Care and Hospitalization of Patients with Wounds
- 3.1.1. Wound Healing by Primary Intention
  - 3.1.1.1. Complications
- 3.1.2. Wound Healing by Secondary Intention
  - 3.1.2.1. Complications
- 3.1.3. Topical Treatments, Dressings and Skin Grafts: What to Use and When
- 3.1.4. New Therapies for Wound Healing: Laser, Cellular Therapy, Radiofrequency, Ozone

3.2. Care and Hospitalization of Pathologies in Hooves
- 3.2.1. Diagnostic Imaging Methods
  - 3.2.1.1. Radiography and Ultrasound
  - 3.2.1.2. Advanced Diagnostic Methods: CT, MRI
  - 3.2.1.3. Venography
- 3.2.2. Foot Baths, Poultices and Other Topical Medications
- 3.2.3. Fissures and Resections of Corneal Sheaths
- 3.2.4. Hospitalization of Horses with Laminitis
  - 3.2.4.1. Chronic Pain Management
  - 3.2.4.2. Post-Surgical Care after Deep Digital Flexor Tendon Tenotomy
- 3.2.5. Most Common Horseshoeing
- 3.2.6. Complications

3.3. Care and Hospitalization of Patients with Joint Pathologies. Fractures
- 3.3.1. Fundamentals of Immobilization of the Musculoskeletal System During Hospitalization
- 3.3.2. Types of Bandages: Splints, Glass Fibers, etc.
- 3.3.3. Complications

3.4. Care and Hospitalization of Patients with Septic Synovial and Bone Structures
- 3.4.1. Synovial Fluid Collection and Monitoring
- 3.4.2. Monitoring by Imaging Techniques: Radiography and Ultrasound
- 3.4.3. Lavages with Needles Lavages with Arthroscopy
- 3.4.4. Regional Perfusions
- 3.4.5. Intrasynovial and Osseous Medication Update

3.5. Care and Hospitalization of Developmental Diseases in Foals
- 3.5.1. Angular Deformities
  - 3.5.1.1. Radiological Monitoring by Angle Measurement
  - 3.5.1.2. Rehabilitation Plans
  - 3.5.1.3. Templates and Horseshoeing
  - 3.5.1.4. Post-Surgical Care: Bandages, Splints, Glass Fibers
  - 3.5.1.5. Complications
- 3.5.2. Flexural Deformities
  - 3.5.2.1. Bandages and Monitoring
  - 3.5.2.2. Rehabilitation Plans
  - 3.5.2.3. Horseshoeing

3.6. Specific Postoperative Incisional Care of Acute Abdominal Syndrome
- 3.6.1. Sterile Incisor Handling
- 3.6.2. Types of Bandages
- 3.6.3. Ultrasound Monitoring of the Incision
- 3.6.4. Topical Treatments: Medication, Cellular Therapy, Ozone Therapy
- 3.6.5. Complications of the Incision: Infections and Hernias

3.7. Care and Hospitalization of the Surgical Patient with Upper Respiratory Tract Pathologies
- 3.7.1. Handling of the Surgical Incision After Laryngoplasty
- 3.7.2. Handling of the Surgical Incision after Ventriculectomy or Ventriculocochordectomy
- 3.7.3. Post-operative Care after Laser Treatment of Upper Respiratory Tract Pathologies.
- 3.7.4. Complications
- 3.7.5. Emergency Tracheotomy
- 3.7.6. Post-Surgical Treatment of the Paranasal Sinuses: Trepanations, Osteotomies, etc.

3.8. Handling of Dystocic Labor
- 3.8.1. Stationary and under General Anesthesia. Aftercare of the Mare
- 3.8.2. Hospitalization of Mares after Cesarean Section

3.9. Management and Hospitalization of Surgical Pathologies of the Postpartum Mare
- 3.9.1. Perineal and Vaginal Laceration and Recto-Vaginal Fistula. Pre- and Post-Surgical Handling
- 3.9.2. Pre- and Post-Surgical Care of Pneumovagina and Urovagina Treatment
- 3.9.3. Post-Surgical Complications

3.10. Management and Hospitalization of Surgical Pathologies of the Male Reproductive System
- 3.10.1. Closed Castrations Open Castrations
- 3.10.2. Phimosis, Paraphimosis and Priapism
  - 3.10.2.1. Conservative Management
  - 3.10.2.2. Post-Surgical Management: Segmental Prostectomy, Phallectomy
- 3.10.3. Postoperative Care after Temporary Urethrostomy and Urethrotomy
- 3.10.4. Complications

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.

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:

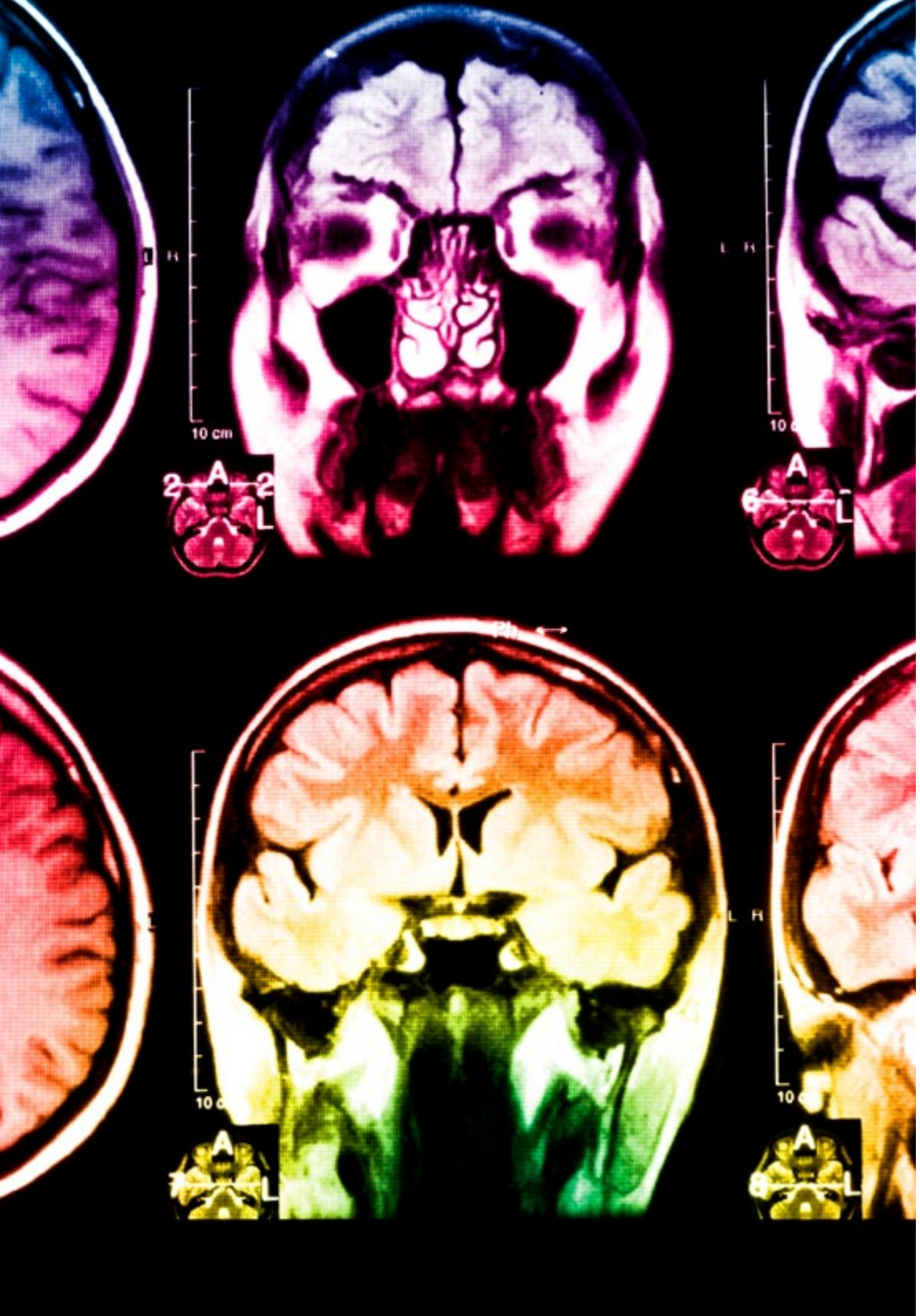
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real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

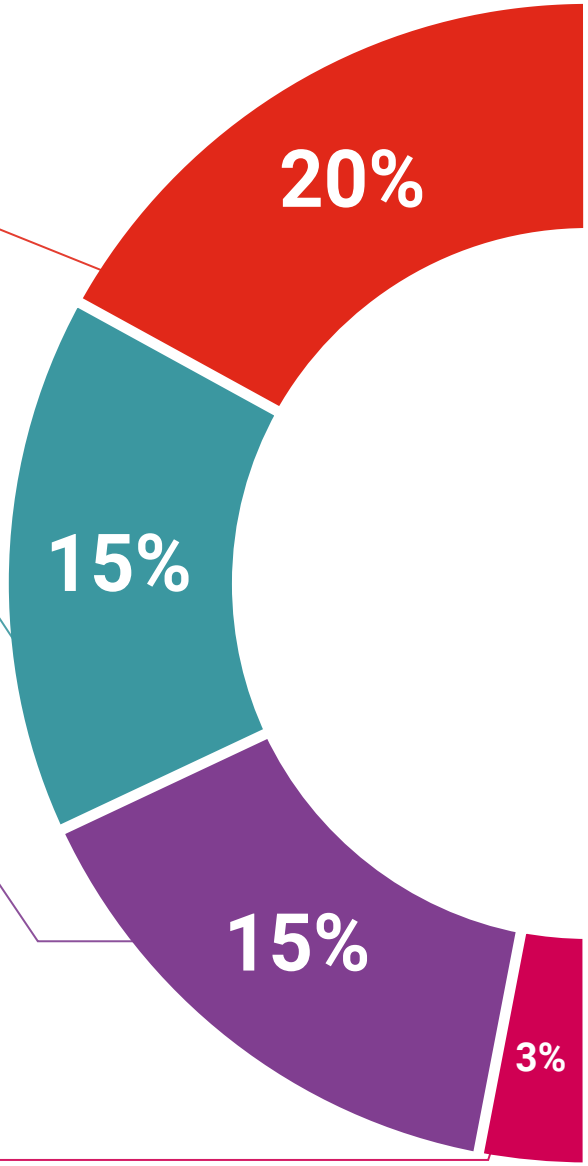
Interactive Summaries

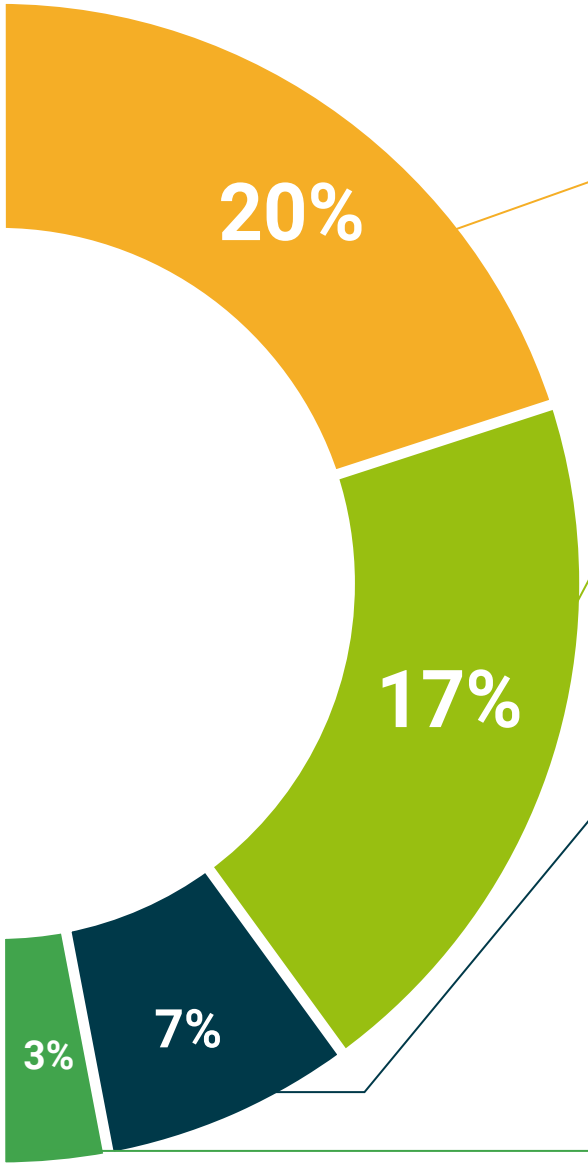
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients, guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.

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

This **Postgraduate Diploma in Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients** 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 certificate 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 Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients**

Official Nº of hours: **450 h.**


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients

This is a qualification awarded by this University, equivalent to 450 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

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This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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.

tech technological university

Postgraduate Diploma

Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Postgraduate Diploma

Hospital Care of Equine Patients with Neurological and Musculoskeletal Pathologies and Surgical Patients

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