Postgraduate Certificate
Neurological Emergencies in Small Animals

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Postgraduate Certificate
Neurological Emergencies in Small Animals

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

Website: **www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/neurological-emergencies-small-animals**

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01

Introduction

Neurological Emergencies in Small Animals are a challenge for practitioners. Due to the delicacy of the approach to head injuries, they require up-to-date intervention based on the most interesting technological and medical advances. This program addresses this field in a comprehensive manner, including, in addition, other emergencies of this type such as toxicological emergencies or status epilepticus. A study of great interest to the veterinary professional.

A high-quality program that will give you the necessary competence in the care of neurological emergencies in small animals, with the most outstanding advances in this field of work"

This module deals with emergency consultations in small animal neurology, comprehensively examines the pathophysiology of each entity, separately, and their therapeutic management.

In this aspect, it deals in depth with the physiopathogenesis of cranioencephalic trauma: management, diagnosis and treatment, with special importance being given to the prognostic value in order to be able to correctly advise the patients' owners.

Another field of great importance, and closely related to the pictures of increased intracranial pressure, will be the cluster and status epilepticus, being fundamental the management of these entities for a correct recovery.

Finally, it analyzes in depth the most common toxic and metabolic emergencies, as well as collapse and flaccid tetraplegia.

The urgent treatment of status epilepticus or toxic syndromes, in a high-intensity study"

This Postgraduate Certificate in Neurological Emergencies in Small Animals offers the characteristics of a high level scientific, teaching and technological program. These are some of its most notable features:

- 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 program

You will learn from the real experience of professionals of recognized competence, who will put their vision and experience in this field at the service of the program"

An immersive studio that will allow you to learn from the experts by observing the techniques learned on high quality audiovisual systems.

A process that will adapt to your needs, allowing you to learn at your own pace, comfortably but efficiently.

TECH's teaching staff is made up of professionals from different fields related to this specialty. In this way, TECH makes sure to offer the student the educational update objective they are aiming for. A multidisciplinary team of professionals train and experience in different environments, who will develop the theoretical knowledge in an efficient way, but above all, they will bring their practical knowledge from their own experience to the program: one of the differential qualities of this training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and *learning from an expert* , the student will be able to acquire the knowledge as if they were facing the scenario being learned at that moment. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

02

Objectives

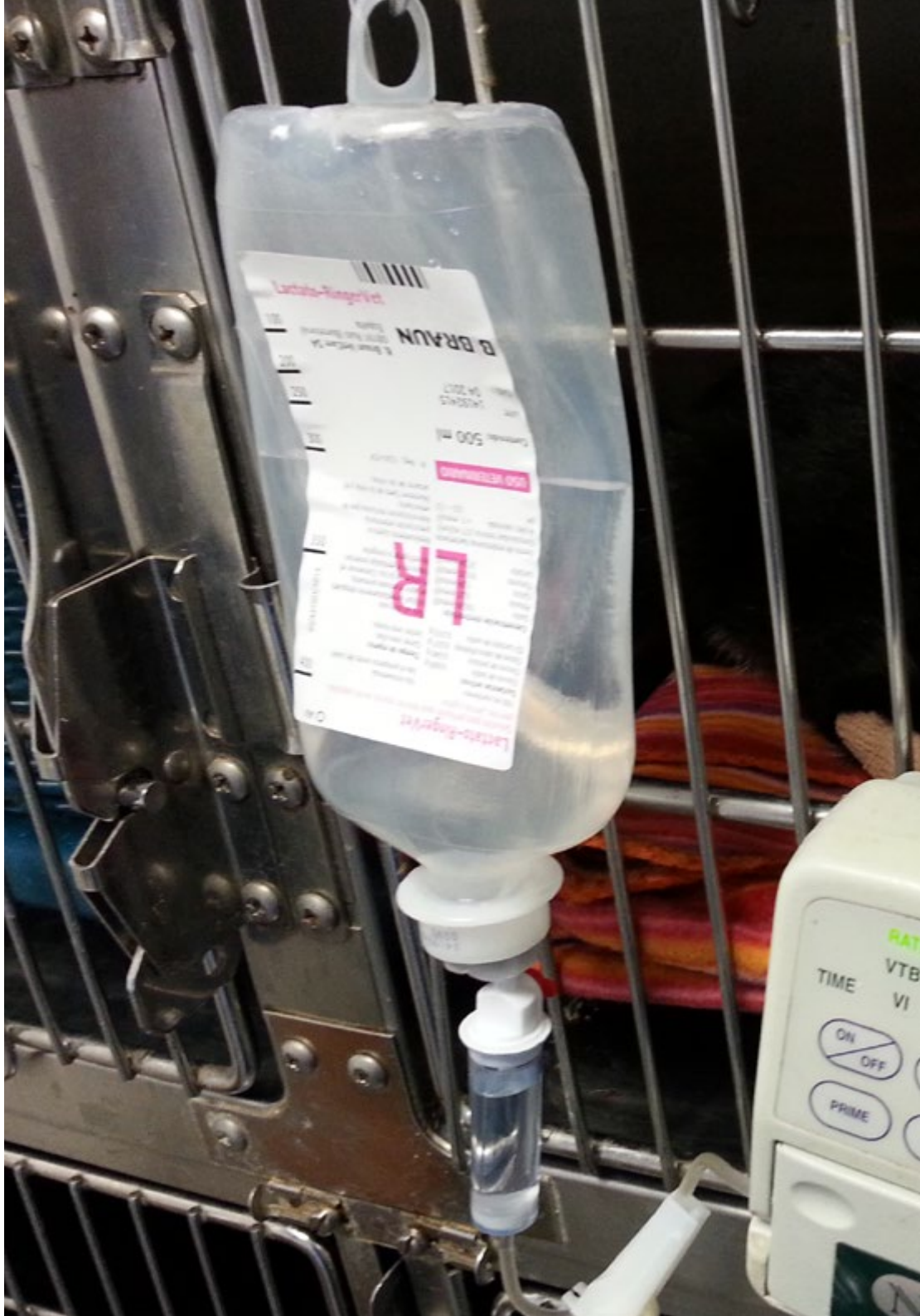
Students will acquire the necessary skills to intervene with the speed and accuracy that neurological emergency care requires through this high-quality program. The objective is for students to generate specialized knowledge, creating a well-structured basis to identify the clinical signs associated with each neurological location and to be able to establish a list of differential diagnoses, acting correctly to achieve the best possible prognosis in patients.

It achieves the speed of response that neurological emergency care requires of the professional in order to provide the best possible prognosis for his patients"

General Objectives

- Analyze the management of anesthesia with a neurological emergency
- Develop and evaluate patients with cranioencephalic and spinal cord trauma.
- Identify the necessary actions to be taken in clusters or status epilepticus.
- Examine the most common toxicological and metabolic emergencies.

A competency growth of total relevance for the veterinarian involved in veterinary emergency services, which will allow you to give a quality boost to your CV"



Specific Objectives

Module 1. Neurological Emergencies

- Specify the types of anesthesia and protocols most commonly used in the anesthesia of patients with neurological emergencies
- Determine the management and prognosis of traumatic brain injury and spinal cord injury
- Examine the most common metabolic emergencies
- Analyze the diagnostic picture and management of weakness and collapse, botulism and tetanus, as well as their diagnosis.

03

Program management

The best veterinarians in this field, experts of proven ability, will be in charge of accompanying you in your study process. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

Experts in this field, our teachers will be in charge of accompanying you in your study, supporting your learning in a direct way"

Director Invitado Internacional

Dr. Steven de Decker's interest in the field of Veterinary Neurology has led him to be one of the most important figures in this area worldwide. He has participated in several international congresses, including the Singapore Vet Show, the largest veterinary conference in the Asian continent.

Such is his relevance that he has become president of the British Society of Veterinary Neurology. He is also a senior lecturer and head of the Neurology and Neurosurgery service at the Royal Veterinary College, considered one of the best veterinary institutions in the world.

His main area of research is spinal disorders and neurosurgery, having delved into the diagnosis and treatment of cervical disc-associated spondylomyelopathy or Wobbler's syndrome in dogs. His most cited studies deal with the prevalence of thoracic vertebral malformations, meningoencephalomyelitis of unknown origin and spinal arachnoid diverticula in dogs.

Dr. De Decker, Steven

- Head of Neurology and Neurosurgery Service, Royal Veterinary College - Hertfordshire, United Kingdom
- Head and Professor of the Neurology and Neurosurgery Service of the Royal Veterinary College - Hertfordshire, UK
- Past President of the British Veterinary Neurological Society.
- Doctor of Veterinary Neurology and Neurosurgery, University of Ghent, Belgium
- Graduate of the University of Ghent, Belgium

Gracias a TECH podrás aprender con los mejores profesionales del mundo"

Management

Dr. Moya García, Sergio

- Doctoral candidate with the Chair of Surgery at the Faculty of Veterinary Medicine of Córdoba
- Miembro de Royal Collage Veterinary Surgeon (MRCVS)
- Member of the Endoscopy Group (GEA) of the Association of Veterinary Specialists in Small Animals (GEA-AVEPA) and of the Association of Veterinary Specialists in Minimally Invasive Medicine (AEVMI)
  and of the Neurology Group of AVEPA
- Vocal of Small Animals of the Official College of Veterinarians of Malaga since 2014
- Headof ATV training for AVEPA. Postgraduate in Neurology by the European School of Veterinary Studies Postgraduate (ESVP)
  Master's Degree in Clinical and Therapeutic Research from the University of Las Palmas de Gran Canaria
- Veterinary Specialist Degree in Endoscopy and Minimally Invasive Surgery by the University of Extremadura
- Assistance Director of the Vetersalud Dr. Moya Day Hospital and Head of the Neurology Department of the Bluecare Animal Hospital
- Currently pursuing neurology accreditation by AVEP

Professors

Dr. Ródenas González, Sergio

- Graduated from the Veterinary University of Cáceres (Uex), he did an internship in the Surgery Department of the same faculty
- Doctorate in Neurology at the Faculty of Veterinary Medicine of Maisons Alfort
- Stays in American Universities and European reference centers in Neurology and Neurology services (University of Davis California, Pennsylvania, Guelph (OVC), Animal Health Trust, etc).
- ECVN Diplomate and European specialist in veterinary neurology.
- 2 years in a referral center in England (SCVS) in the Neurology and Neurosurgery service
- One year clinical instructor in Neurology and Neurosurgery at the Faculty of Veterinary Medicine of the University of Montreal (Canada)
- In Canada, responsible for Neurology and Neurosurgery in two referral centers while continuing his work in England for two years
- Numerous national and international publications, as well as speaker at numerous international congresses on veterinary neurology and neurosurgery

Ms. Mangas Ballester, Teresa

- Degree in Veterinary Medicine from the University of Extremadura (2009).
- Since 2017 she has been working as Head of the Anesthesia Service at AniCura Valencia Sur Veterinary Hospital.
- Subsequently, she worked as a resident intern at the Veterinary Clinic Hospital Complutense University for 3 years.
- In 2015 she began working at the Jesús Usón Minimally Invasive Surgery Center as a researcher in the Anesthesiology Unit.
- There, in addition to participating as a professor in the official university master's degree in endoscopy and minimally invasive surgery in small animals and small animal anesthesia programs, she participated in several research projects.
- During his professional career, he has made stays in hospitals in Europe and North America, as well as participating in several publications and communications in congresses.

Learning from the best is the best way to learn. Don't miss this opportunity"

04

Structure and Content

The most complete, up-to-date and effective syllabus on neurological emergencies in small animals, which will take the student through all the essential areas of learning proposed, gradually acquiring the necessary skills to put into practice such essential knowledge. A well-developed learning scheme that will allow students to learn in a continuous, efficient and customized way.

A structured study for efficiency and conversion into real skills for clinical practice that will optimize your effort and convert it into practical returns"

Module 1. Neurological Emergencies

1.1. Anesthesia and Management in Patients with Neurological Emergencies
- 1.1.1. Active Ingredients Used in Emergency Anesthetic Procedures
- 1.1.2. Monitoring

1.2. Traumatic Brain Injury I
- 1.2.1. Medical History
- 1.2.2. Pathophysiology
- 1.2.3. Glasgow Scale

1.3. Traumatic Brain Injury II
- 1.3.1. Treatment Levels of Action
- 1.3.2. Surgery

1.4. Spinal Trauma I
- 1.4.1. Causes
- 1.4.2. Pathophysiology

1.5. Spinal Trauma II
- 1.5.1. Diagnosis
- 1.5.2. Treatment

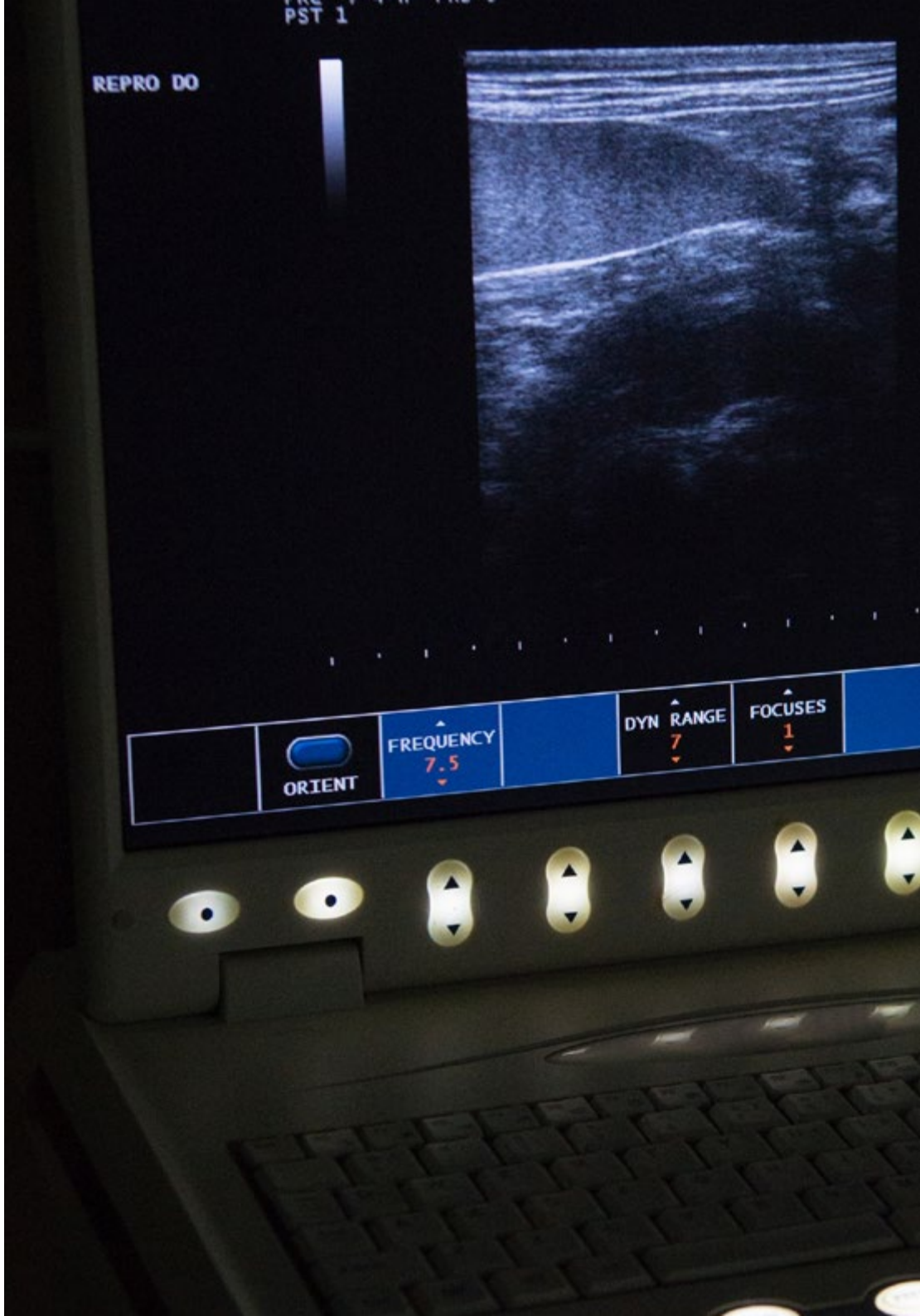
1.6. Clusters and Status Epilepticus
- 1.6.1. Pathophysiology and Causes
- 1.6.2. Treatment and Stabilization

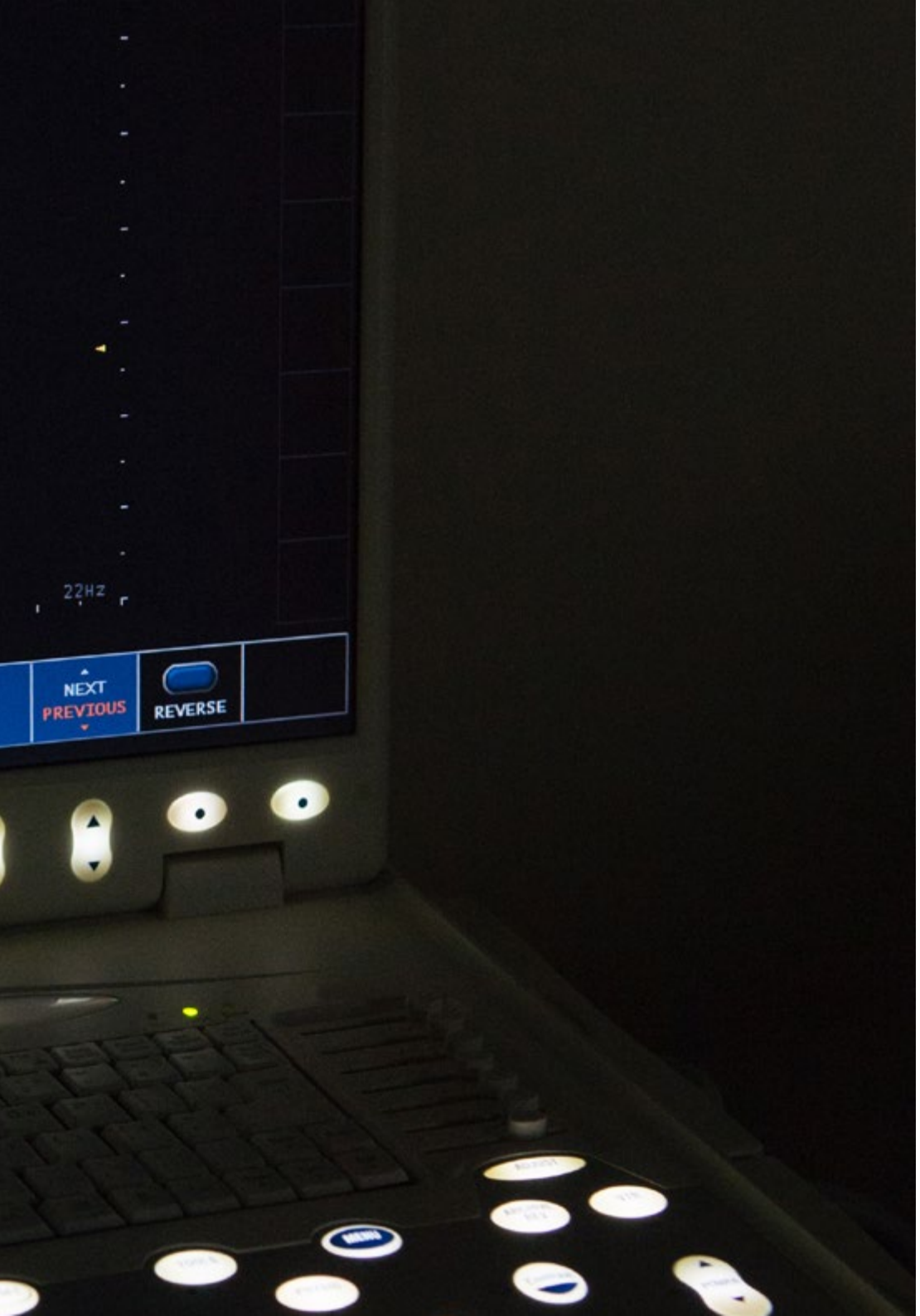
1.7. CNS Neurotoxicity
- 1.7.1. Main Toxins Affecting the Nervous System
- 1.7.2. Action to Be Taken in the Event of Poisoning

1.8. Metabolic Emergencies
- 1.8.1. Hypoglycemia
- 1.8.2. Uremic Crisis
- 1.8.3. Hepatic Encephalopathy

1.9. Tetanus and Botulism
- 1.9.1. Tetanus
- 1.9.2. Botulism

1.10. Exercise Intolerance and Collapse
- 1.10.1. Diagnostic Algorithm
- 1.10.2. Management and Treatments





A review of all the advances and innovations that veterinary medicine has incorporated into this field of work in which the avant-garde is a necessity of total relevance"

05

Methodology

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

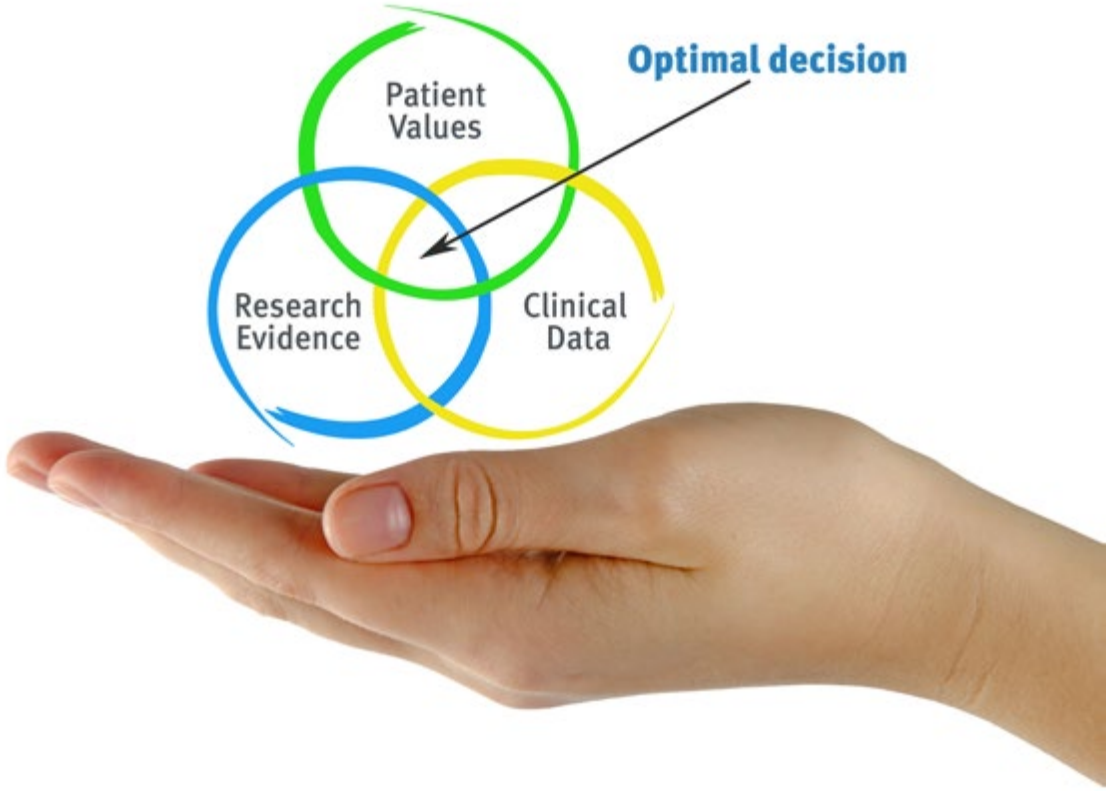
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.

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

In a given clinical situation, what should a professional do? Throughout the program yc 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 can 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 potential or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions of professional veterinary 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:

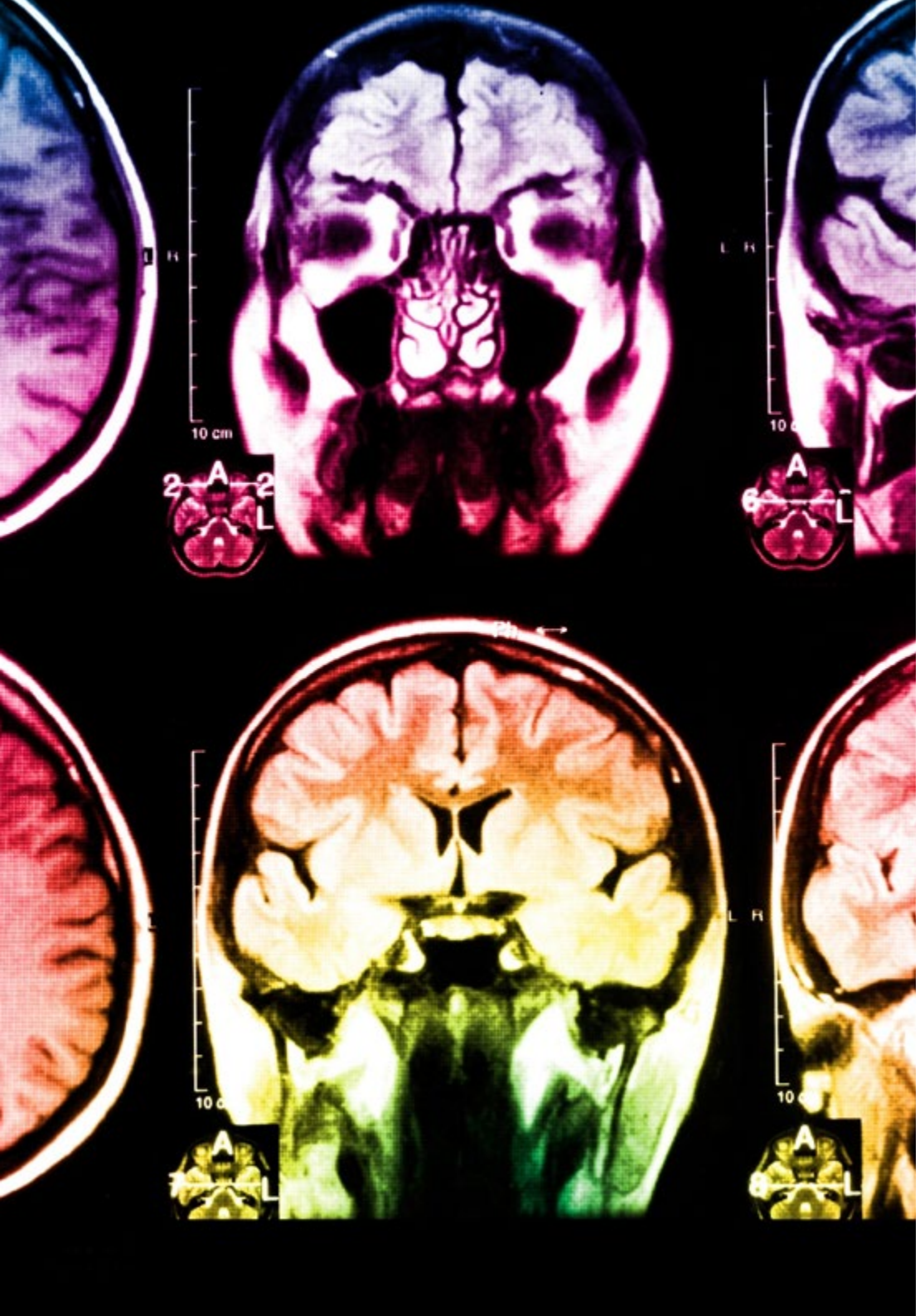
1. Veterinarians who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.
2. The learning process has a clear focus on practical skills that allow the student to 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 Harvard case method with the best 100% online teaching methodology available: *Relearning*.

Our 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, which represent a real revolution with respect to simply studying and analyzing 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 we have trained more than 65,000 veterinarians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

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

In this program you will have access to the best educational material, prepared with you in mind:

Study Material

All the teaching materials are specifically created for the course by specialists who teach on the course so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Latest Techniques and Procedures on Video

We bring you closer to the latest Techniques, to the latest Educational Advances, to the forefront of current Veterinary Techniques and Procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, students can watch them as many times as they want.

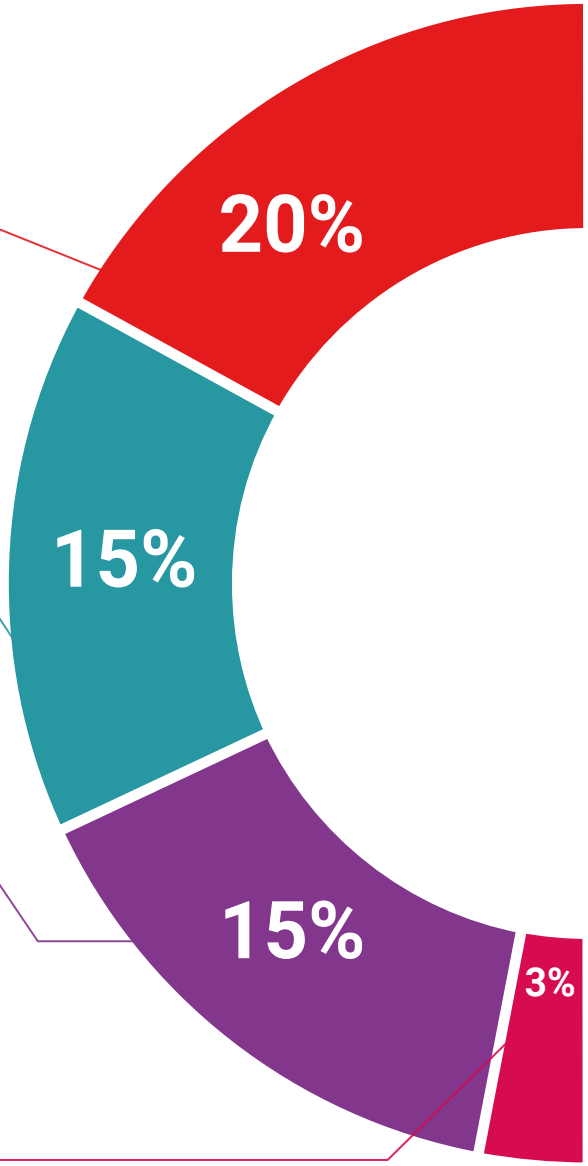
Interactive Summaries

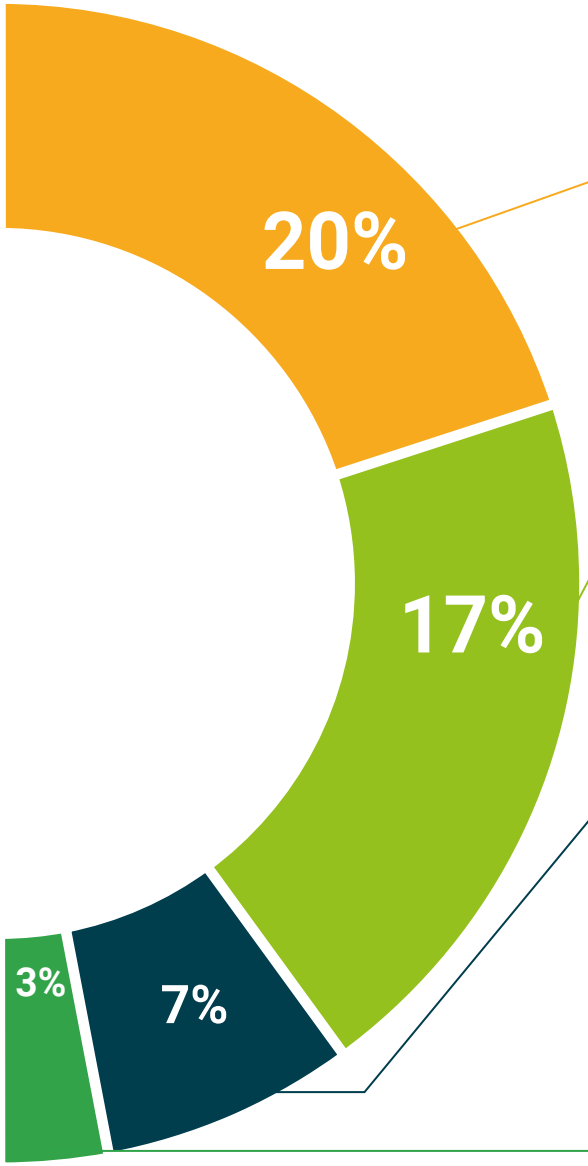
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents, international guides... in our 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, we will present students with real case developments in which the expert will guide them through 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 your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your 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 our future difficult decisions.

Quick Action Guides

We offer you the most relevant contents of the program 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 Certificate in Neurological Emergencies in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Neurological Emergencies in Small Animals** a 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 Certificate** issued by **TECH Technological University via tracked delivery.**

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

Title: **Postgraduate Certificate in Neurological Emergencies in Small Animals**

Official Nº of Hours: **150 hours.**

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C. _____, con documento de identificación nº_____

Por haber superado con éxito y acreditado el programa de

DIPLOMADO

en

Urgencias Neurológicas en Pequeños Animales

Se trata de un título propio de esta Universidad con una duración de 150 horas, con fecha de inicio dd/mm/aaaa y fecha de finalización dd/mm/aaaa.

TECH es una Institución Particular de Educación Superior reconocida por la Secretaría de Educación Pública a partir del 28 de junio de 2018.

A 17 de junio de 2020

Mtra.Tere Guevara Navarro
Rectora

Este título propio se deberá acompañar siempre del título universitario habilitante expedido por la autoridad competente para ejercer profesionalmente en cada país. código único TECH: AFWOR23S techtitute.com/titulos

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.

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