Postgraduate Certificate
Urology in Large Animals

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Postgraduate Certificate
Urology in Large Animals

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

Website: **www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/urology-large-animals**

Index

01 Introduction — p. 4

02 Objectives — p. 8

03 Course Management — p. 12

04 Structure and Content — p. 16

05 Methodology — p. 20

06 Certificate — p. 28

01

Introduction

This program covers renal physiology, monitoring of renal function during nephrotoxic treatments, early detection of renal problems, diagnosis and treatment of animals with severe renal pathology and long term management of these patients. It establishes the complementary tests necessary for a complete evaluation of renal function, their interpretation and most common errors. It also provides veterinary clinicians with the skills to specialize in the appropriate interpretation of clinical signs in order to elaborate an adequate diagnostic protocol and select the necessary complementary tests.

Large animals can have complex pathologies, so it is necessary to have specialized veterinarians who can treat them"

The Postgraduate Certificate in Urology in Large Animals incorporates innovative knowledge, based on the latest scientific evidence, that allows veterinary professionals to stay up to date on the newest treatments and emerging diseases that affect large animals across the world as a consequence of globalization.

Specialized and advanced knowledge of these diseases is necessary since outbreaks of some diseases considered eradicated or new ones may occur in all countries of the world.

Clinical practice is a very dynamic activity, new treatments are constantly appearing in scientific publications and veterinarians must be aware of them in order to be able to offer these options to their clients. Each of the modules in this program covers one of the organ systems, with emphasis on those systems that are most frequently affected in the Large Animals.

With respect to ruminants, although their handling and the diseases they suffer from are different from those of horses, they must also be understood with sufficient scientific expertise to be able to establish adequate treatments and accurate prognoses. Camelids of the new world or South America, which include mainly llamas and alpacas as domesticated animals, are animals bred for different purposes including fiber production, pack animals or meat production in South America. Horses are animals that are used both for leisure and as companion animals, as well as in different sports disciplines, which adds an important added economic value. It is essential to have a high level of knowledge in internal medicine to be able to work with these horses, since, due to their economic value, they are not readily accessible to clinicians with little training.

This program is designed by professors with the highest recognized degree of specialization, thus guaranteeing its quality in all aspects, both clinical and scientific, in large animals.

This **Postgraduate Certificate in Urology in Large Animals** contains the most complete and up to date scientific program on the market. The most important features include:

- Practical Cases presented by experts in Urology in Large Animals
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- Latest innovations on Urology in Large Animals
- Practical exercises where self assessment can be used to improve learning
- Special emphasis on innovative methodologies in Urology in Large Animals
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

Get trained with us and learn how to diagnose and treat diseases in Large Animals, in order to improve their quality of life"

This course is the best investment you can make when choosing a refresher program to update your existing knowledge of Urology in Large Animals"

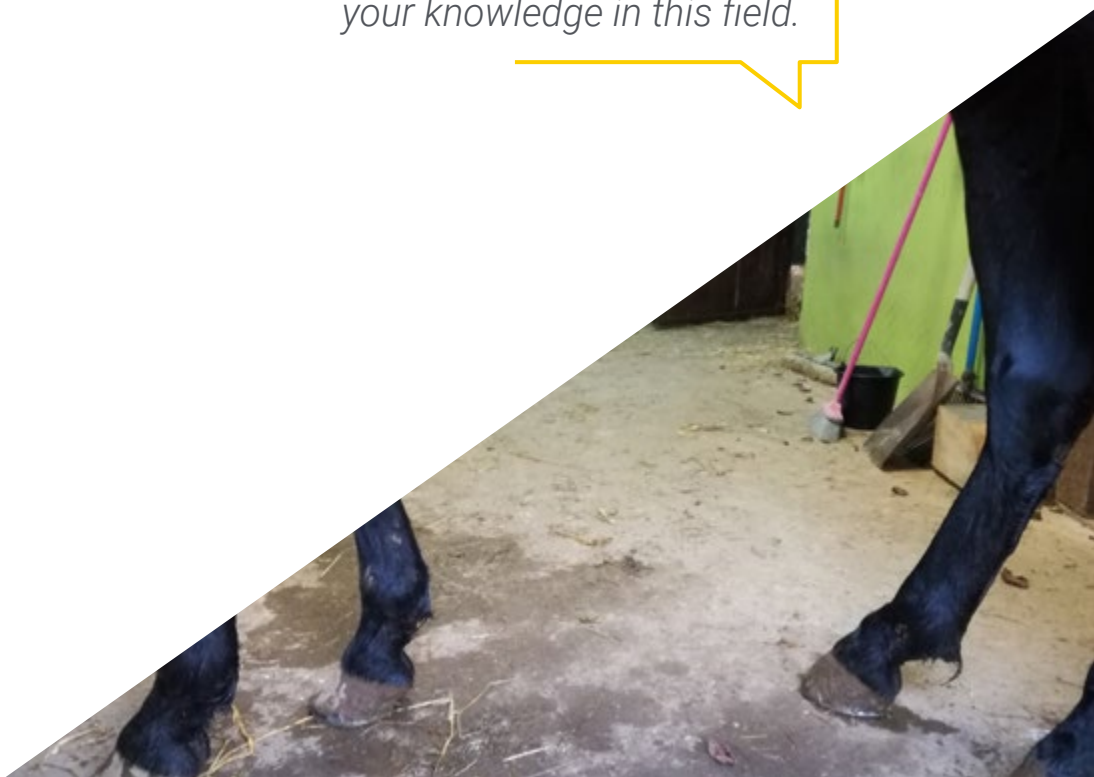
This program has the best didactic material, which will enable a contextual study that will facilitate your learning.

This 100% online program will allow you to combine your studies with your professional work while increasing your knowledge in this field.

Its teaching staff includes professionals from the veterinary field, who contribute their work experience to this program, in addition to renowned specialists from prestigious reference societies and universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

This program is designed around Problem Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this, the professional will have the help of an innovative interactive video system made by renowned and experienced experts in Internal Medicine in Large Animals.



02

Objectives

The Postgraduate Certificate in Urology in Large Animals is designed to facilitate the performance of the veterinary professional with the latest advances and most innovative treatments in the sector.

This is the best option to learn about the latest advances in Urology in Large Animals"

General Objectives

- Examine the physiological functioning of the urinary system
- Establish an appropriate methodology for the examination of patients with urinary and renal problems
- Identify all clinical signs associated with kidney disease
- Establish the specific clinical approach to animals with a kidney disorder

Join one of the largest online universities in the world”

Specific Objectives

- Develop specialized knowledge of clinical examination in urinary and renal problems
- Perform renal controls to avoid renal toxicity
- Identify the alterations specific to the different renal diseases
- Establish an appropriate diagnostic plan for the main clinical manifestations of renal problems
- Correctly diagnose the different renal problems and establish a prognosis for these animals
- Determine a treatment plan, both short and long term, for the main urinary and renal problems

03

Course Management

The program's teaching staff includes leading experts in the Urology in Large Animals, who bring their work experience to this training program. Professionals of recognized prestige have joined forces to offer you this high level training.

Our team of teachers, with expertise in Urology in Large Animals, will help you reach success in your profession"

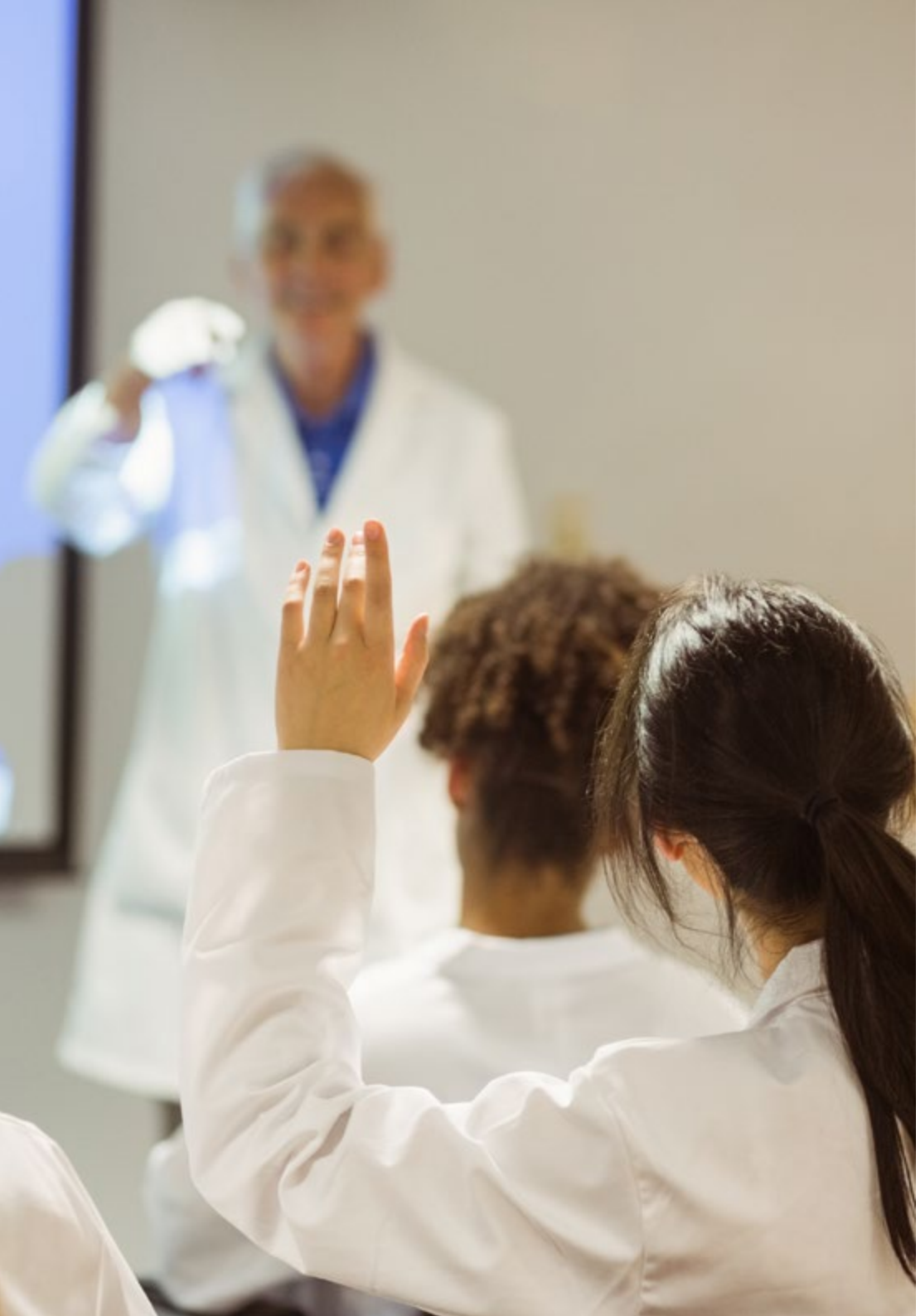
Management

Dr. Martín Cuervo, María

- Doctor of Veterinary Medicine from the University of Extremadura. Doctoral thesis on Inflammation Markers in Horses in a Critical Condition, 2017
- Degree in Veterinary Medicine from the University of Cordoba
- President of the Scientific Committee in the National Congress of the Spanish Association of Equine Veterinarians (AVEE), 2020.
- Member of the Scientific Committee in the International Committee of the International Purebred Spanish Horse Show (SICAB), 2020
- 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)
- Head of the Equinie Internal Medicine Services in the University of Extremadura (from 2015-present)

Dr. Barba Recreo, Marta

- PhD in Biomedical Sciences, Auburn University, Alabama, USA, in 2016
- Diplomate of the American College of Internal Medicine, Large Animal in 2015
- Degree in Veterinary Medicine from the University of Zaragoza in 2009
- Head of the Equine Internal Medicine Service, Clinical Veterinary Hospital, CEU Cardenal Herrera University, Valencia



Professors

Dr. Medina Torres Carlos E.

- PhD in Veterinary Sciences from the University of Guelph, Ontario, Canada, 2009
- Diploma from the American College of Internal Medicine, specializing in Large Animals and from the European College of Equine Internal Medicine
- PhD from the University of Queensland, Australia, 2015
- 2017- Senior Lecturer and Clinical Specialist in Internal Medicine at the University of Queensland, Australia

04

Structure and Content

The structure of the content has been designed by the best professionals in the field of Urology in Large Animals, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied to veterinary medicine.

We have the most complete and up to date academic program in the market. We strive for excellence and for you to achieve it too"

Module 1. Alterations of the Urinary System in Large Animals

1.1. Anatomy, Physiology and Diagnostic Tests
- 1.1.1. Anatomy
- 1.1.2. Physiology
  - 1.1.2.1. Elimination of Nitrogenous Components
  - 1.1.2.2. Electrolyte Removal and Recovery (Tubular Function)
  - 1.1.2.3. Water Balance

1.2. Hematology and Blood Biochemistry
- 1.2.1. Urianalysis
  - 1.2.1.1. Density
  - 1.2.1.2. Test Strip
  - 1.2.1.3. Microscopy
  - 1.2.1.4. Enzimuria
  - 1.2.1.5. Excretional Fractions
  - 1.2.1.6. Cultures
- 1.2.2. Imaging Techniques
  - 1.2.2.1. Ultrasound
  - 1.2.2.2. Radiology
  - 1.2.2.4. Endoscopy
  - 1.2.2.5. Gammagraphy
- 1.2.3. Renal Biopsy
- 1.2.4. Quantification of Renal Function (Clearance)

1.3. Acute Renal Insufficiency (ARF) in Horses
- 1.3.1. Causes
- 1.3.2. Pathophysiology
- 1.3.3. Acute Tubular Necrosis
- 1.3.4. Acute Interstitial Nephritis
- 1.3.5. Acute Glomerulonephritis
- 1.3.6. Diagnosis
- 1.3.7. Treatment
- 1.3.8. Prognosis

1.4. Chronic Renal Insufficiency in Horses
- 1.4.1. Predisposing Factors
- 1.4.2. Glomerulonephritis
- 1.4.3. Acute Interstitial Nephritis
- 1.4.4. Other Causes
- 1.4.5. Diagnosis
- 1.4.6. Treatment
- 1.4.7. Prognosis

1.5. Renal Tubular Acidosis in Horse
- 1.5.1. Pathophysiology
- 1.5.2. Type 1
- 1.5.3. Type 2
- 1.5.4. Type 3
- 1.5.5. Quantitative/ Traditional Approximation of Imbalances
- 1.5.6. Diagnosis
- 1.5.7. Treatment

1.6. Investigation and Differential Diagnosis of Polyuria/Polydipsia
- 1.6.1. Diagnostic Protocol
- 1.6.2. Causes
  - 1.6.2.1. Renal Insufficiency
  - 1.6.2.2. *Cushing*
  - 1.6.2.3. Primary Polydipsia
  - 1.6.2.4. Excessive Consumption of Salt
  - 1.6.2.5. Diabetes Insipidus
  - 1.6.2.6. Diabetes Mellitus
  - 1.6.2.7. Sepsis
  - 1.6.2.8. Iatrogenic

1.7. Investigation and Differential Diagnosis of Pigmenturia (Renal Hemorrhage, Urolithiasis, Urethritis)
- 1.7.1. Urethritis/Urethral Defects
- 1.7.2. Cystitis
- 1.7.3. Pyelonephritis
- 1.7.4. Urolithiasis
  - 1.7.4.1. Urethral Calculi
  - 1.7.4.2. Bladder Stones
- 1.7.5. Idiopathic Renal Hematuria
- 1.7.6. Hematuria Associated with Exercise
- 1.7.7. Pigmenturia Caused by Systemic Pathology

1.8. Genitourinary Diseases in Cattle
- 1.8.1. Congenital Genitourinary Pathologies
- 1.8.2. Kidney Damage and Failure
- 1.8.3. Other Diseases of the Kidneys
- 1.8.4. Diseases of the Urethers, Bladder and Urethra

1.9. Genitouriary Diseases in Small Ruminants
- 1.9.1. Congenital Genitourinary Pathologies
- 1.9.2. Kidney Damage and Failure
- 1.9.3. Other Diseases of the Kidneys
- 1.9.4. Urinary Obstruction.
- 1.9.5. Diseases of the Urethers, Bladder and Urethra

1.10. Genitourinary Diseases in Camelids
- 1.10.1. Congenital Genitourinary Pathologies
- 1.10.2. Kidney Damage and Failure
- 1.10.3. Other Diseases of the Kidneys
- 1.10.4. Urinary Obstruction.
- 1.10.5. Diseases of the Urethers, Bladder and Urethra
- 1.10.6. Neoplasty

05

Methodology

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

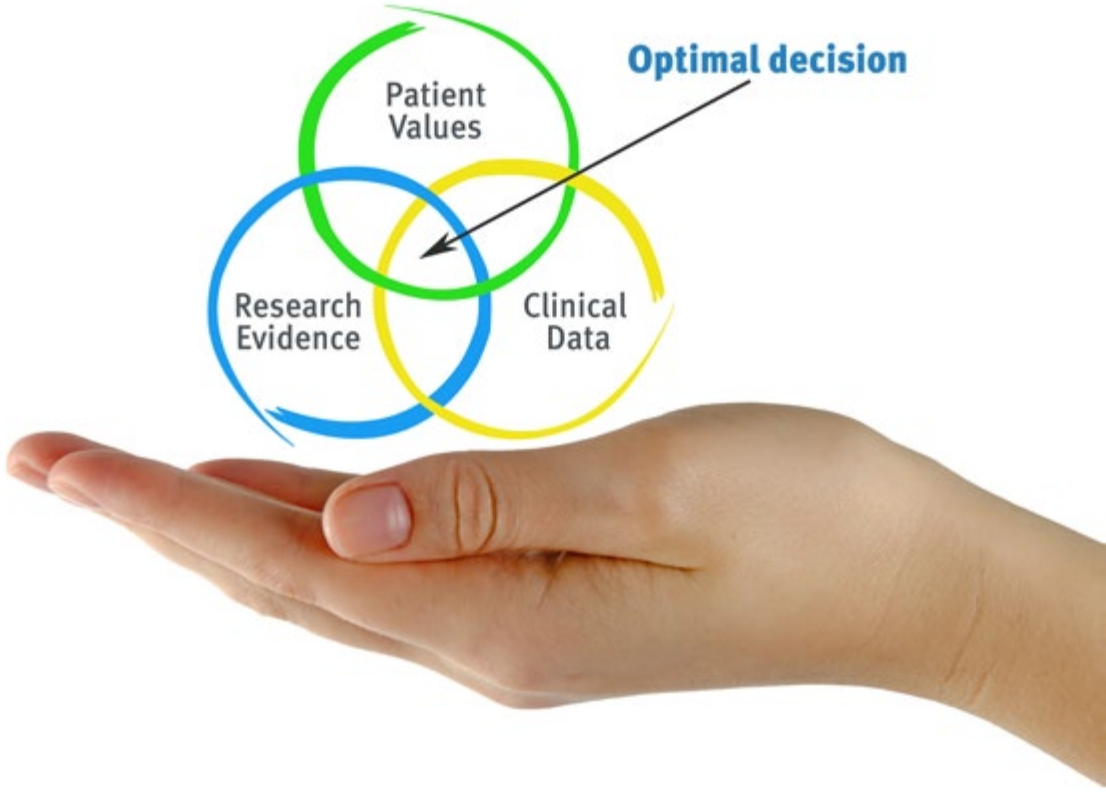
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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:

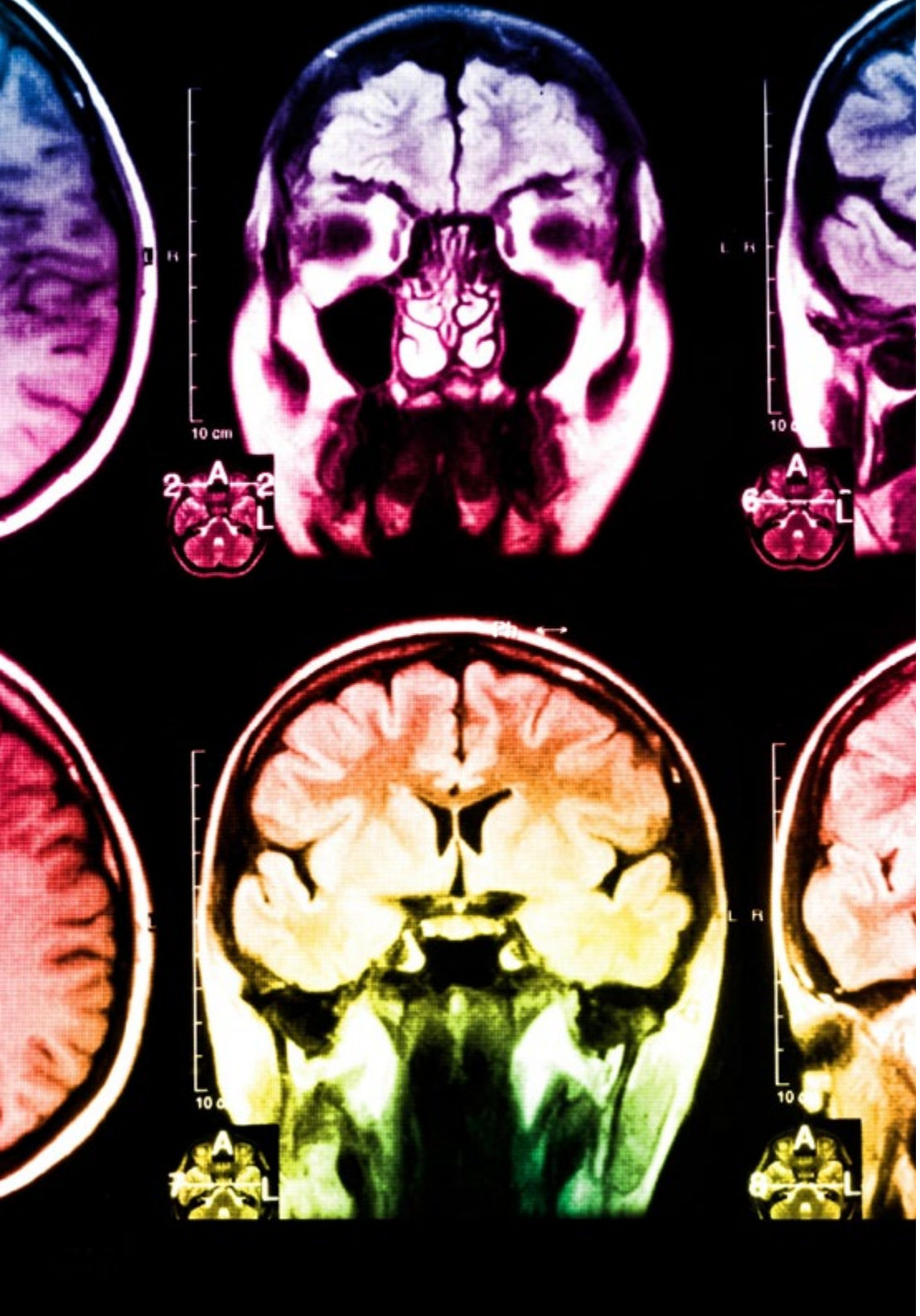
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real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

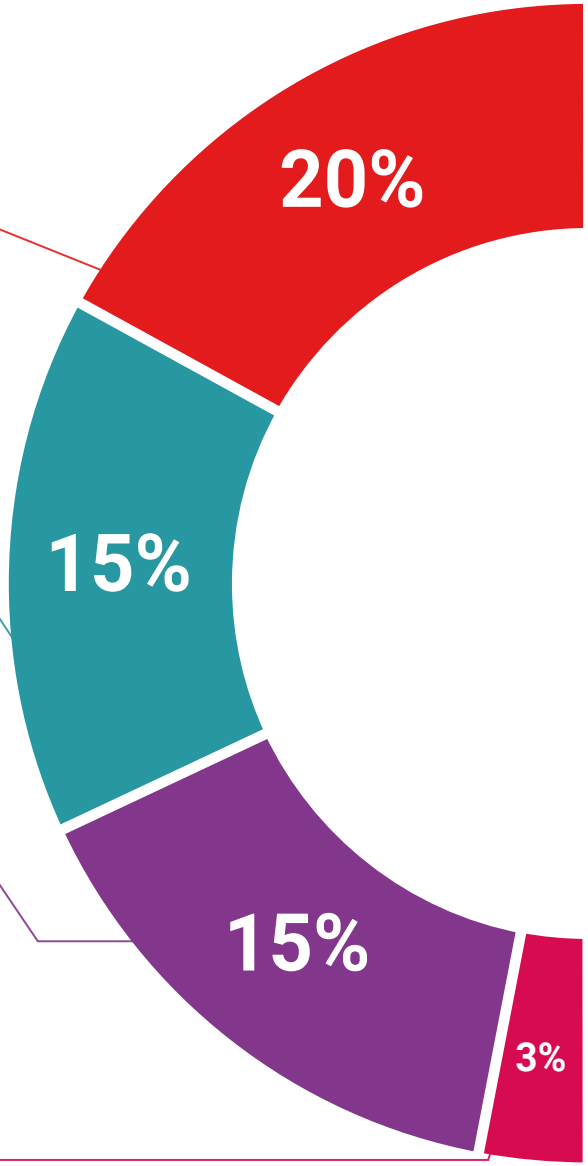
Interactive Summaries

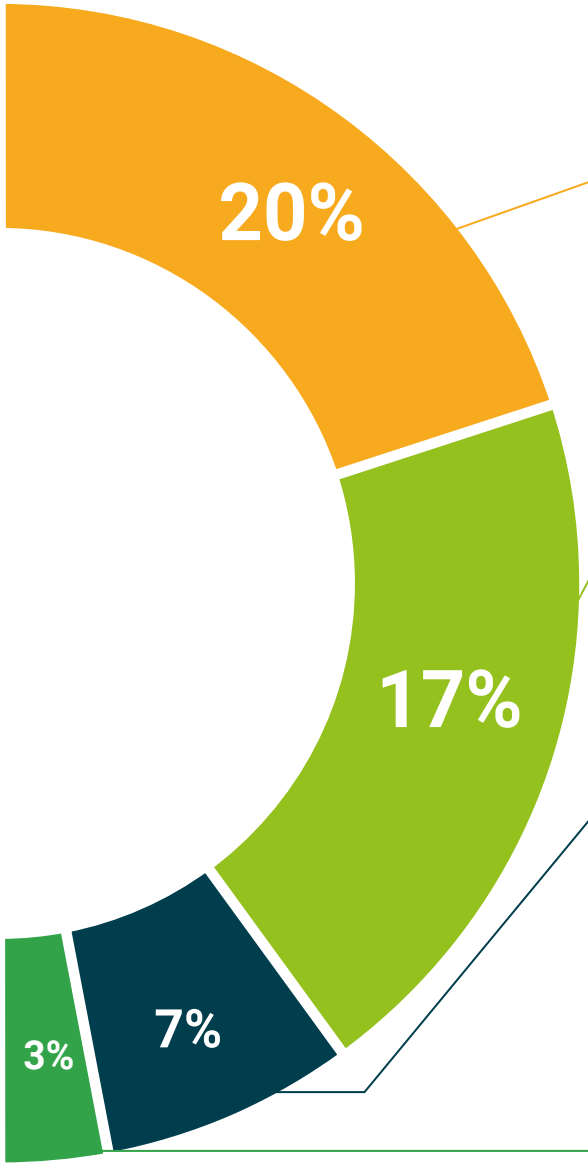
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Certificate in Urology in Large Animals guarantees students, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate 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 Urology in Large Animals** 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 certificate 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 Urology in Large Animals**

Official Nº of hours: **150 h.**


tech technological university

Awards the following

CERTIFICATE

to

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

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Urology in Large Animals

This is a qualification awarded by this University, equivalent to 150 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

Dean

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.

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Postgraduate Certificate
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