

# Postgraduate Certificate

## Large Animal Analgesia





## Postgraduate Certificate Large Animal Analgesia

- » 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/large-animal-analgesia](http://www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/large-animal-analgesia)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

From a pharmacological point of view, until relatively recently, pharmacological protocols for the management of animal pain were based on the administration of agents that were usually only indicated for analgesia. These drugs are what we generally consider "traditional analgesics" and include three major families of drugs: opioids, NSAIDs and local anesthetics. However, the effectiveness of other drugs which are not necessarily indicated for analgesia has recently been discovered. These drugs are called "co-adjuvant analgesics" and range from antidepressants to anticonvulsants. Therefore, this program will cover in detail the pharmacology of drugs such as opioids, NSAIDs, ketamine, lidocaine,  $\alpha_2$  agonist agents, amitriptyline, gabapentin, tramadol or paracetamol.





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*Become a professional in one of today's most in-demand fields: specialize in Large Animal Analgesia with this comprehensive online program”*

In the last 20 years, Large Animal Anesthesia has experienced significant advances thanks to the introduction of new techniques and drugs, as well as the development of monitors and specialized anesthetic machines.

The introduction of novel surgical techniques has resulted in the need to develop new anesthetic protocols. There is a growing concern about the impact of anesthesia and analgesia on animal welfare and the final outcome of surgical procedures.

The Postgraduate Certificate in Large Animal Analgesia is designed in response to the need for clinical veterinarians with greater expertise of the protocols and techniques relevant to this area.

The teaching team of this program is made up of professionals specialized in Large Animal Analgesia, with a wide experience in teaching, both in undergraduate and graduate programs, most of them being university professors and graduates. These professors are practicing anesthesiologists at leading veterinary centers and directors or participants in various research projects, so that in addition to teaching and clinical work they also carry out research activities.

The topics covered in the Postgraduate Certificate in Large Animal Analgesia have been selected with the aim of offering a complete course in anesthesia, so that the student develops specialized knowledge to safely address any situation requiring general or locoregional anesthesia and analgesia in ruminants, swine, camelids and equids.

At present, one of the issues that affects continuous postgraduate development is the reconciliation of work and personal life. Current professional demands make it difficult to achieve quality, specialized education in person, so the online format will allow students to combine this specialized training with their daily professional practice, without losing their connection to development and specialization.

This **Postgraduate Certificate in Large Animal Analgesia** 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
- ◆ Intensely visual teaching system, supported by graphic and schematic contents, easy to assimilate and understand
- ◆ Case studies 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 work for individual reflection
- ◆ Content that is accessible from any fixed or portable device with an Internet connection.
- ◆ Supplementary documentation databases which are permanently available, even after the program



*A Postgraduate Certificate that will enable you to work in all fields of Veterinary Anesthesiology with the competence of a high-level professional”*

“Achieve a comprehensive and relevant qualification in Large Animal Analgesia with this highly effective Postgraduate Certificate and open up new pathways for your professional progress”

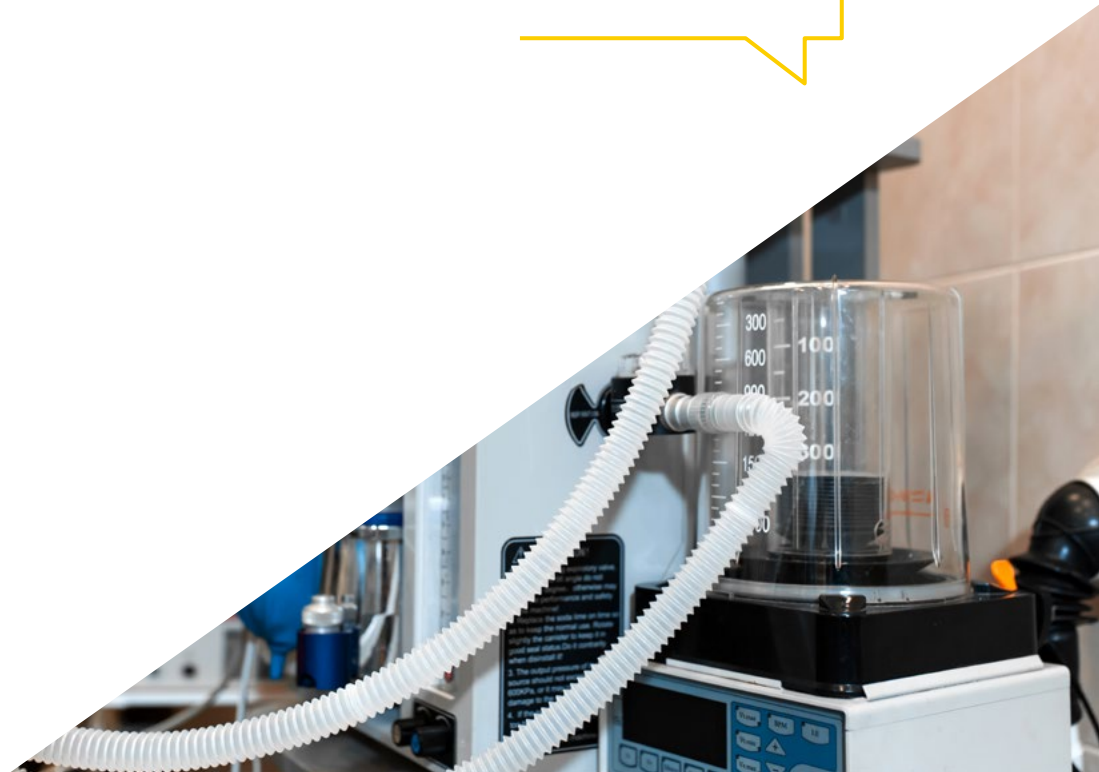
The teaching team is made up of professionals from different fields within this specialism. In this way, TECH ensures that it delivers educational results in line with its objectives. A multidisciplinary team of professionals, trained and experienced in different environments, who will develop the theoretical 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.

This mastery of the subject matter is complemented by the effectiveness of the methodological design of this Postgraduate Certificate in Large Animal Analgesia. Developed by a multidisciplinary team of e-Learning experts, it integrates the latest advances in educational technology. Students will be able to study with a range of convenient and versatile multimedia tools that will give them the operability they need while specializing in the subject.

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, TECH will use telepractice: with the help of an innovative, interactive video system, and Learning from an Expert, students will be able to acquire the knowledge as if they were facing the case they are learning in real time. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

You will have the experience of expert professionals who will contribute their experience in this area to the program, making this course a unique opportunity for professional growth.

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



# 02 Objectives

The objective of this Postgraduate Certificate is to train highly qualified professionals. An objective that is complemented, moreover, in a holistic manner, by promoting human development that lays the foundations for a better society. The aim is focused on helping professionals reach a much greater level of expertise and control. A goal that can be achieved in just a few months with a high-intensity and precise program.





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*If your objective is to broaden your skills set to include new paths of success and development: this is the program for you: a training that aspires to excellence"*



## General Objectives

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- ♦ Analyze the pathophysiological principles governing pain processes
- ♦ Determine the features and correct use of pain scales specific to equine species
- ♦ Build specialist knowledge of the pharmacology of the main families of analgesic agents
- ♦ Examine the special pharmacological qualities of analgesic agents in ruminants, swine and camelids
- ♦ Examine the anatomy relevant to the loco-regional techniques to be performed
- ♦ Generate specialized knowledge on the clinical pharmacology of the local anesthetics to be used
- ♦ Determine the equipment necessary to perform the different loco-regional techniques
- ♦ Detail how to perform the different loco-regional techniques in large ruminants, small ruminants, swine and camelids
- ♦ Establish how to perform the different loco-regional techniques on horses





## Specific Objectives

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- ♦ Examine the definition of pain, as well as the different types of pain in relation to their pathophysiology and their evolution in time
- ♦ Determine the main physiological components associated with pain sensation
- ♦ Generate specialized knowledge relating to the nociception pathway
- ♦ Determine the main pathophysiological consequences of untreated pain
- ♦ Analyze theories on the use of pain scales in the equine patient
- ♦ Gain advanced knowledge of the pharmacology of opioids, NSAIDs, alpha-2 agonist agents, ketamine, lidocaine and other co- analgesic drugs
- ♦ Establish the main side effects of opioids, NSAIDs, alpha-2 agonist agents, ketamine, lidocaine and other co- analgesic drugs
- ♦ Determine the main contraindications to the administration of opioids, NSAIDs, alpha-2 agonist agents, ketamine, lidocaine and other co- analgesic drugs
- ♦ Examine the clinical uses of opioids, NSAIDs, alpha-2 agonist agents, ketamine, lidocaine, and other co- analgesic drugs
- ♦ Determine the drugs to be administered
- ♦ Establish the equipment to be used
- ♦ Examine the anatomy of the head in relation to the nerve blocks performed
- ♦ Generate specialized knowledge on local head, forelimb and hind limb techniques
- ♦ Examine the anatomy of the forelimb and hind limb in relation to nerve blocks
- ♦ Detail the anatomy of the abdomen relevant to the nerve blocks performed
- ♦ Generate advanced knowledge on local abdominal techniques
- ♦ Examine the anatomy of the vertebral canal
- ♦ Detail the epidural technique
- ♦ Determine the main loco-regional techniques in other large animal species



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

03

# Course Management

In line with the program's concept of total quality, a highly qualified teaching staff, chosen for their proven experience, is the student's disposal. 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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*We have the best teaching team, with years of experience, who are determined to transmit all their knowledge about this sector”*

## Management



### Dr. Villalba Orero, María

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

## Professors

### Dr. Martín Cuervo, María

- ♦ Head of the Internal Medicine Department of the Clínico Veterinario Hospital at the University of Extremadura
- ♦ PhD in Veterinary Medicine by the Extremadura University
- ♦ Degree in Veterinary Medicine from the University of Córdoba
- ♦ Veterinarian, FEI; 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. Salazar Nussio, Verónica

- ♦ Doctor of Medicine from the Complutense University Madrid
- ♦ Degree in Veterinary Medicine from Complutense University Madrid
- ♦ Certified by the American College of Veterinary Anesthesia and Analgesia
- ♦ Certificate recognized by the European College of Veterinary Anesthesia and Analgesia
- ♦ Her professional career has been mainly academic as a lecturer in Anesthesia and Veterinary Analgesia in several Universities and Reference Centers in several countries such as the United States, Spain and the United Kingdom
- ♦ In 2019 she becomes a RECOVER Certified Instructor in Basic and Advanced Life Support, a title awarded by the American College of Emergency and Critical Care. Since that same year, she has also been a RECOVER certified Rescuer in Basic and Advanced Life Support

**Dr. Montefiori, Filippo**

- ♦ Veterinary Anesthesiologist in the outpatient service at the Anesthesia and Veterinary Surgery in Madrid
- ♦ Degree in Veterinary Medicine from the University of Italy
- ♦ Lecturer in Small and Large Animal Anesthesia and Analgesia at the Veterinary School of the University of Edinburgh (UK)
- ♦ Collaborator in practical teaching at the Faculty of Veterinary Medicine of Complutense University Madrid
- ♦ Honorary collaborator at the Faculty of Veterinary Medicine at Complutense University, Madrid

**Dr. Rioja, Eva**

- ♦ Doctorate in Veterinary from Complutense University Madrid
- ♦ Doctor in Veterinary Science, University of Guelph (Canada)
- ♦ Degree in Veterinary Medicine from Complutense University Madrid
- ♦ Certified by the American College of Veterinary Anesthesia and Analgesia
- ♦ Certificate recognized by the European College of Veterinary Anesthesia and Analgesia
- ♦ Her professional career has been mainly academic as a professor of Veterinary Anesthesia and Analgesia at several universities in various countries such as Canada, South Africa and the United Kingdom

**Dr. Santiago Llorente, Isabel**

- ♦ Doctorate in Veterinary from Complutense University Madrid
- ♦ Degree in Veterinary Medicine from Complutense University Madrid
- ♦ Professor at the University of Lisbon (Portugal) in the Department of Medical Clinical Pathology II from 2019 to present

- ♦ Her professional career is focused on equine clinical practice and research, currently as a contract veterinarian in the large animal area of the Complutense Clinical Veterinary Hospital, Complutense University Madrid
- ♦ Head of Equine Internal Medicine and member of the Anesthesia Service at the Hospital Clínico Veterinario Complutense, Complutense University Madrid

**Dr. Troya Portillo, Lucas**

- ♦ Internal Medical and Anesthesia Service, Equine Unit, Clínic Veterinari Hospital
- ♦ Degree in Veterinary Medicine from Complutense University Madrid
- ♦ Postgraduate Diploma in Equine Clinic in the Autonomous University of Barcelona
- ♦ Master's Degree in Clinic at Complutense University Madrid
- ♦ Associate Professor, Department of Animal Medicine and Surgery, Autonomous University of Barcelona, teaching equine internal medicine
- ♦ Professor at the Institute for Applied Studies (IDEA-Madrid)
- ♦ Associate Professor, Department of Animal Medicine and Surgery, Autonomous University of Barcelona
- ♦ Training placements in various national and European centers
- ♦ Member of the Spanish Association of Equine Veterinarians (AVEE)

**Dr. Miralles, Jaime**

- ♦ Veterinarian
- ♦ Degree in Veterinary Practice from the University of Zaragoza
- ♦ Graduated in Veterinary Anesthesia from Complutense University Madrid in 2003
- ♦ Certified by the European College of Veterinary Anesthesia and Analgesia (ECVAA)
- ♦ Associate Professor of Veterinary Anesthesia in the Faculty of Pharmacodynamics of the Complutense University Madrid

**Dr. Valero, Marta**

- ♦ Veterinarian in the Department of Medicine and Large Animal Surgery at the University Clinical Hospital of the University of Extremadura
- ♦ Graduate in Veterinary Medicine from the University of Murcia
- ♦ Master's Degree in Medicine and Large Animal Surgery from the University of Extremadura
- ♦ Collaborator in practical teaching on the Large Animal Clinic course at the University of Extremadura

**Dr. Roquet, 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. Jiménez, Alberto**

- ♦ Veterinary Intern at the Large Animal Department of the Veterinary Clinic Hospital of the University of Extremadura
- ♦ Degree in Veterinary Medicine, Complutense University Madrid
- ♦ Instruction and supervision of students belonging to the Department of Large Animal Surgery and students of the Clinical Rotation of the Faculty of Veterinary Medicine of the University of Extremadura







**Dr. Peña Cadahía, Celia**

- ◆ Clinical veterinarian at Eurocan Veterinary Centre
- ◆ Horse Anesthesia, Virgen de las Nieve Clinical Veterinary Hospital
- ◆ Graduated in Veterinary Medicine from the Complutense University Madrid Teaching Experience
- ◆ Collaborating Professor of Medicine and Surgery in the large animal area of the Complutense University Madrid Teaching Experience
- ◆ Emergency Anesthesia in the Area of Large Animals, Clinical Veterinary Hospital at the Complutense University Madrid

**Dr. Ruiz García, Gemma**

- ◆ Internal veterinarian of the Equine Service of the HCVC
- ◆ Degree in Veterinary Medicine, Complutense University Madrid
- ◆ Director of Radiodiagnostic Facilities
- ◆ Collaborating student of the Equine Medicine and Surgery Service of the HCVC

**Dr. Bercebal, Lucía**

- ◆ Internal Veterinary, Rotatory in Equine Clinic at the Complutense Clinical Veterinary Hospital, Madrid
- ◆ Doctorate in Veterinary Medicine, Complutense University Madrid
- ◆ Course "Director of Veterinary Radiodiagnostic Facilities" – Official College of Veterinarians of Madrid
- ◆ Course "Vets with Horse Power 10: The virtual event 21"- Vets with Horse Power
- ◆ Course "Diagnosis of Lameness in the CDE" – EquiVet Academy

**Dr. Villalba, Marta**

- ◆ Collaboration as an ambassador of the Complutense Clinical Veterinary Hospital (HCVC)
- ◆ Degree in Veterinary Medicine, Complutense University Madrid
- ◆ Delivery of Training Days at the Complutense Equine Clinic: equine ophthalmology, diagnostic imaging of the cervical spine and locoregional anesthesia and standing procedures in horses

04

# Structure and Content

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

A complete and well-structured program will take you to the highest standards of quality and success.





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*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. Large Animal Analgesia

- 1.1. Definition of Pain and Pathophysiology of Pain
  - 1.1.1. Definition of Pain
  - 1.1.2. Types of Pain
  - 1.1.3. Pathophysiology of Pain
    - 1.1.3.1. Nociceptors
    - 1.1.3.2. Axons
    - 1.1.3.3. Neurotransmitters
    - 1.1.3.4. Nociception Monitoring
- 1.2. Multimodal and Preventative Analgesia
  - 1.2.1. Clinical Analgesia
  - 1.2.2. Multimodal Analgesia
  - 1.2.3. Preventative Analgesia
- 1.3. Consequences of Untreated Pain
- 1.4. Pain Detection Systems
  - 1.4.1. Physiological Signs
  - 1.4.2. Equine Pain Scales
  - 1.4.3. Pain Scales in Other Species
- 1.5. Opioids
  - 1.5.1. Pharmacology
  - 1.5.2. Side Effects
  - 1.5.3. Contraindications
  - 1.5.4. Clinical Use
- 1.6. NSAIDs
  - 1.6.1. Pharmacology
  - 1.6.2. Side Effects
  - 1.6.3. Contraindications
  - 1.6.4. Clinical Use
- 1.7. Agents  $\alpha_2$  Agonists
  - 1.7.1. Pharmacology
  - 1.7.2. Side Effects
  - 1.7.3. Contraindications
  - 1.7.4. Clinical Use
- 1.8. Ketamine and Lidocaine
  - 1.8.1. Ketamine
    - 1.8.1.1. Pharmacology
    - 1.8.1.2. Side Effects
    - 1.8.1.3. Contraindications
    - 1.8.1.4. Clinical Use
  - 1.8.2. Lidocaine
    - 1.8.2.1. Pharmacology
    - 1.8.2.2. Side Effects
    - 1.8.2.3. Contraindications
    - 1.8.2.4. Clinical Use
- 1.9. Others: Gabapentin, Amantadine, Amitriptyline, Tramadol, Paracetamol
  - 1.9.1. Gabapentin
    - 1.9.1.1. Pharmacology
    - 1.9.1.2. Side Effects
    - 1.9.1.3. Contraindications
    - 1.9.1.4. Clinical Use
  - 1.9.2. Amantadine
    - 1.9.2.1. Pharmacology
    - 1.9.2.2. Side Effects
    - 1.9.2.3. Contraindications
    - 1.9.2.4. Clinical Use
  - 1.9.3. Amitriptyline
    - 1.9.3.1. Pharmacology
    - 1.9.3.2. Side Effects
    - 1.9.3.3. Contraindications
    - 1.9.3.4. Clinical Use
  - 1.9.4. Tramadol
    - 1.9.4.1. Pharmacology
    - 1.9.4.2. Side Effects
    - 1.9.4.3. Contraindications
    - 1.9.4.4. Clinical Use

- 1.9.5. Paracetamol
  - 1.9.5.1. Pharmacology
  - 1.9.5.2. Side Effects
  - 1.9.5.3. Contraindications
  - 1.9.5.4. Clinical Use
- 1.10. Pharmacology in Other Species (Small and Large Ruminants, Swine and Camelids)
  - 1.10.1. Observations on Pharmacology Analgesics in Small Ruminants
  - 1.10.2. Observations on Pharmacology Analgesics in Large Ruminants
  - 1.10.3. Observations on Pharmacology Analgesics in Swine
  - 1.10.4. Observations on Pharmacology Analgesics in Camelids

## Module 2. Locoregional Anesthesia in Large Animals

- 2.1. Pharmacology of Local Anesthetics
  - 2.1.1. Action Mechanism
  - 2.1.2. Clinical Differences
  - 2.1.3. Complications
  - 2.1.4. Adjuvants
- 2.2. Instruments and Equipment
  - 2.2.1. Needles
  - 2.2.2. Neurostimulation
  - 2.2.3. Ultrasound
- 2.3. Locoregional Head Blocks (i)
  - 2.3.1. Maxillary Nerve Block
  - 2.3.2. Infraorbital Nerve Block
  - 2.3.3. Mandibular Nerve Block
  - 2.3.4. Mentonian Nerve Block
- 2.4. Locoregional Head Blocks (ii)
  - 2.4.1. Back Bulbar/Peribulbar Block
  - 2.4.2. Eyelid Block
  - 2.4.3. Auriculopalpebral Block
  - 2.4.4. Ear Block
  - 2.4.5. Cervical Block
- 2.5. Locoregional Forelimb Blocks
  - 2.5.1. Surgical Blocks

- 2.6. Locoregional Hind Limb Blocks
  - 2.6.1. Surgical Blocks
- 2.7. Locoregional Laparotomy Blocks
  - 2.7.1. Paravertebral Lumbar Block
  - 2.7.2. Inverted "L" Block and Infiltration
  - 2.7.3. Flat Transverse Abdominal Block
- 2.8. Epidural Anesthesia
  - 2.8.1. Realization of a Single Technique
  - 2.8.2. Epidural Catheter Placement
  - 2.8.3. Drugs Used
- 2.9. Locoregional Anesthesia for Large Ruminants
  - 2.9.1. Most Common Techniques
- 2.10. Locoregional Anesthesia for Small Ruminants, Swine and Camelids
  - 2.10.1. Most Common Techniques



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

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.



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

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

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



## Relearning Methodology

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

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



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

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

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

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

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

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



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



#### Study Material

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

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



#### Latest Techniques and Procedures on Video

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



#### Interactive Summaries

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

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



#### Additional Reading

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





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

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



#### Testing & Retesting

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



#### Classes

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

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



#### Quick Action Guides

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



# 06 Certificate

The Postgraduate Certificate in Large Animal Analgesia guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Large Animal Analgesia** 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 Large Animal Analgesia**

Official N° of Hours: **300 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.



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

development language

virtual classroom

**tech** technological  
university

Postgraduate Certificate

Large Animal Analgesia

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

# Postgraduate Certificate Large Animal Analgesia

