

# Postgraduate Certificate Analgesia in Small Animals





## Postgraduate Certificate Analgesia in Small Animals

Course Modality: **Online**

Duration: **6 weeks**

Certificate: **TECH - Technological University**

**6 ECTS Credits**

Teaching Hours: **150 hours.**

Website: [www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/analgesia-small-animals](http://www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/analgesia-small-animals)

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# 01

# Introduction

Pain is one of the most important areas of work in veterinary medicine. A basic vital sign that, if not adequately controlled, can be one of the main causes of delayed discharge and perioperative complications. Acquiring skills in this part of care is one of the objectives of this course.





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*Become a professional in one of the most in-demand fields of the moment: train in Analgesia in Small Animals with this comprehensive online Postgraduate Certificate”*

Pet care has grown substantially in recent decades, both in terms of the dedication of health care and the demand for quality care.

Higher life-expectancy and survival in cases of chronic illnesses means that the use of and need for analgesia in small animals is a constant in veterinary practice. Scientific evolution has provoked the emergence of new drugs and ways of applying analgesia. Ensuring their knowledge of this evolution is kept up-to-date requires a lot of time and dedication on the part of the professional.

This Postgraduate Certificate has been created to answer this need. A comprehensive and very specific training that will allow you to advance in your profession in a simple way and is totally compatible with your other commitments.



*Become fully and adequately qualified in Analgesia in Small Animals with this highly effective Postgraduate Certificate and open new avenues for your professional progress"*

This **Postgraduate Certificate in Analgesia in Small Animals** offers you the advantages of a high-level scientific, teaching, and technological course. These are some of its most notable features:

- ♦ The latest technology in online teaching software.
- ♦ 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.
- ♦ 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 Postgraduate Certificate

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

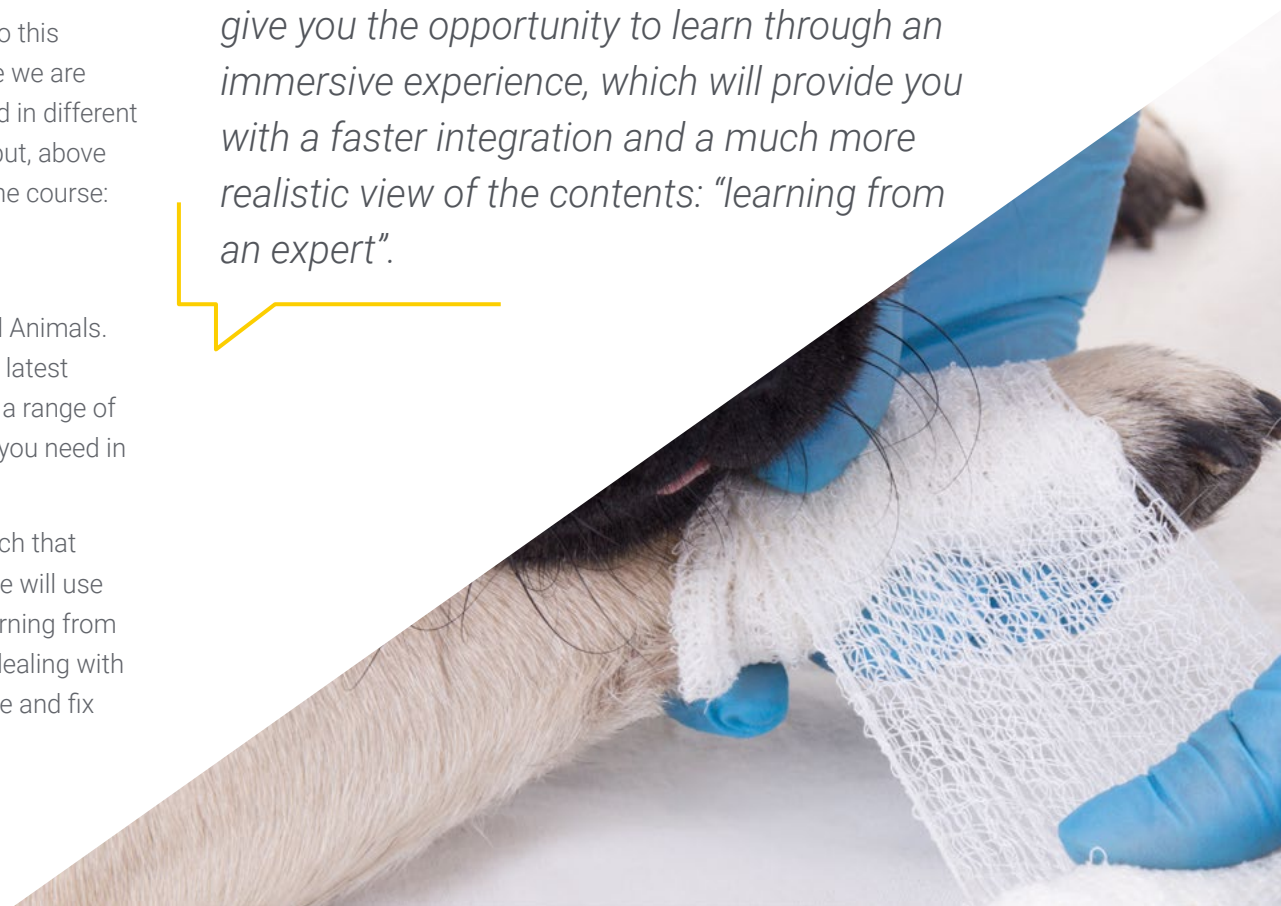
Our teaching staff is made up of professionals from different fields related to this specialty. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will bring the practical knowledge derived from their own experience to the course: one of the differential qualities of this course.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Postgraduate Certificate in Analgesia in Small Animals. 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 in your 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, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*With a methodological design based on proven teaching techniques, this Postgraduate Certificate in Analgesia in Small Animals will take you through different teaching approaches to allow you to learn in a dynamic and effective way.*

*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".*



# 02

# Objectives

Our objective is to train highly qualified professionals for the working 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 focused on helping medical professionals reach a much higher level of expertise and control. A goal that, in just six months, you will be able to achieve with a highly intensive and precise course.







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



## General Objectives

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- Learn and understand the physiology of nociceptive and acute and chronic pain
- Acquire a logical understanding of the physiological implications of untreated pain
- In-depth knowledge of the different analgesics and their indications
- Know how to assess both acute and chronic pain
- Understand the basics of locoregional anesthesia and analgesia





## Specific Objectives

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- ◆ Understand the different nociceptive pathways and the phenomena of central and peripheral sensitization
- ◆ Understand the action of each family of analgesics and their use in both acute and chronic pain
- ◆ Know the importance and different methods of acute and chronic pain assessment.

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

03

# Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. 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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*The Postgraduate Certificate in Analgesia in Small Animals will provide you with the personal and professional skills essential to adequately play a role in any professional situation in this field of intervention"*

## Management



### **Cabezas Salamanca, Miguel Ángel**

- Graduated in veterinary medicine from the Complutense University of Madrid. Two-year internship at the Anesthesia Service of the Veterinary Clinic Hospital of the UCM.
- Accredited by AVEPA in the Specialty of Anesthesia and Analgesia.
- Head of the Anesthesia-Resuscitation Service and Pain Unit at Puchol Veterinary Hospital.
- Founding member of the Spanish Society of Veterinary Anesthesia and Analgesia (SEAAV). Member of the European Association of Veterinary Anesthesia (AVA), International Association for the Study of Pain (IASP) and the International Veterinary Academy of Pain Management (IVAPM).
- Speaker in several Anesthesia and Analgesia courses and national and international congresses.
- Author of the books "Practical Pain Management in Small Animals" and "Role of NSAIDs in Chronic Pain".
- Co-author of the "Clinical Manual of Pharmacology and "Complications in Small Animal Anesthesia"; as well as author of specific chapters in other books.

## Professors

### Cabezas Salamanca, Miguel Ángel

- ♦ Graduated in veterinary medicine from the Complutense University of Madrid. Two-year internship at the Anesthesia Service of the Veterinary Clinic Hospital of the UCM.
- ♦ Accredited by AVEPA in the Specialty of Anesthesia and Analgesia
- ♦ Head of the Anesthesia-Reanimation Service and Pain Unit at Hospital Veterinario Puchol
- ♦ Founding member of the Spanish Society of Veterinary Anesthesia and Analgesia (SEAAV). Member of the European Association of Veterinary Anesthesia (AVA), International Association for the Study of Pain (IASP) and the International Veterinary Academy of Pain Management (IVAPM).
- ♦ Speaker in several Anesthesia and Analgesia courses and national and international congresses
- ♦ Author of the books "Practical Pain Management in Small Animals" and "Role of NSAIDs in Chronic Pain"
- ♦ Co-author of the "Clinical Manual of Pharmacology and "Complications in Small Animal Anesthesia"; as well as author of specific chapters in other books

### Soto Martín, María

- ♦ Degree in veterinary medicine from the Complutense University of Madrid in 2009, with preferential dedication to anesthesia since 2010 and sole dedication since 2012
- ♦ Member of the Spanish Society of Veterinary Anesthesia and Analgesia, with frequent participation in its annual congresses, one of which earned her the award for best oral communication
- ♦ Member of the Anesthesia group of AVEPA, having also participated on several occasions with scientific content in its annual congress
- ♦ She provided specific small animal anesthesia training throughout his career in the form of lectures, webinars, hands-on workshops and clinic-based training
- ♦ She also collaborated in books and scientific articles, published nationally and internationally



*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"*

# 04

# Structure and Content

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

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







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*Throughout the course of this training you will be able to enjoy an infinite supply of high-level practical and theoretical content”*

## Module 1. Analgesia

- 1.1. Pain Physiology
  - 1.1.1. Nociceptive Pathways
  - 1.1.2. Peripheric Sensitization
  - 1.1.3. Central Sensitization
- 1.2. Chronic Pain I. Osteoarthritis
  - 1.2.1. Peculiarities of OA Pain
  - 1.3.2. Basic Lines of Pain Treatment Due to OA.
- 1.3. Chronic Pain II. Oncologic Pain; Neuropathic Pain
  - 1.3.1. Peculiarities of Oncological Pain
  - 1.3.2. Peculiarities of Neuropathic Pain
  - 1.3.3. Basic Lines of Treatment
- 1.4. Opioid Analgesics
  - 1.4.1. General Characteristics of Opioids
  - 1.4.2. Opioid Peculiarities in Felines
- 1.5. Nonsteroidal Anti-Inflammatory Drugs
  - 1.5.1. General Characteristics of NSAIDS
  - 1.5.2. NSAIDS Peculiarities in Felines
- 1.6. Other Analgesics I: Ketamine, Lidocaine
  - 1.6.1. Ketamine General Characteristics
  - 1.6.2. Lidocaine General Characteristics
    - 1.6.2.1. Precautions with Felines
- 1.7. Other Analgesics II
  - 1.7.1. Paracetamol
  - 1.7.2. Dipyrone
  - 1.7.3. Gabapentinoids (Gabapentin and Pregabalin)
  - 1.7.4. Amantadine
  - 1.7.5. Grapiprant





- 1.8. Assessment of Post-Surgical Pain
  - 1.8.1. Implications of Post-Surgical Pain
  - 1.8.2. Perioperative Pain Assessment Scales
    - 1.8.2.1. Canines
    - 1.8.2.2. Felines
- 1.9. Assessment of Chronic Pain
  - 1.9.1. Implications of Chronic Pain
  - 1.9.2. Chronic Pain Assessment Scales
    - 1.9.2.1. Canines
    - 1.9.2.2. Felines
- 1.10. Analgesia in the Emergency Department and in the Hospitalized Patient
  - 1.10.1. Peculiarities in Emergency and Hospitalized Patients
  - 1.10.2. Analgesic Protocols for Hospitalized Patients

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

05

# Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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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*Successfully complete this training program and receive your university certificate without travel or laborious paperwork"*

## At TECH we use the Case Method

In a given clinical situation, what would you do? 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 abundant 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 be based on current professional life, trying to recreate the real conditions in the 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 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.



## Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking 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.

*Re-learning 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 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 this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you 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 unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





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

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Re-Testing

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 course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



06

# Certificate

The Postgraduate Certificate in Analgesia in Small Animals guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Analgesia in Small Animals** contains the most complete and up-to-date scientific program on the market.

After passing the evaluations, the student will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will specify the qualification obtained through the **Postgraduate Certificate**, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Analgesia in Small Animals**

ECTS: **6**

Official Number of Hours: **150 hours**.



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

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development languages  
classroom



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Certificate**  
Analgesia in Small Animals

Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

6 ECTS Credits

Teaching Hours: 150 hours.

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