# Postgraduate Certificate

The Musculoskeletal System and Tissues in Veterinary Rehabilitation





# Postgraduate Certificate The Musculoskeletal System and Tissues in Veterinary Rehabilitation

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

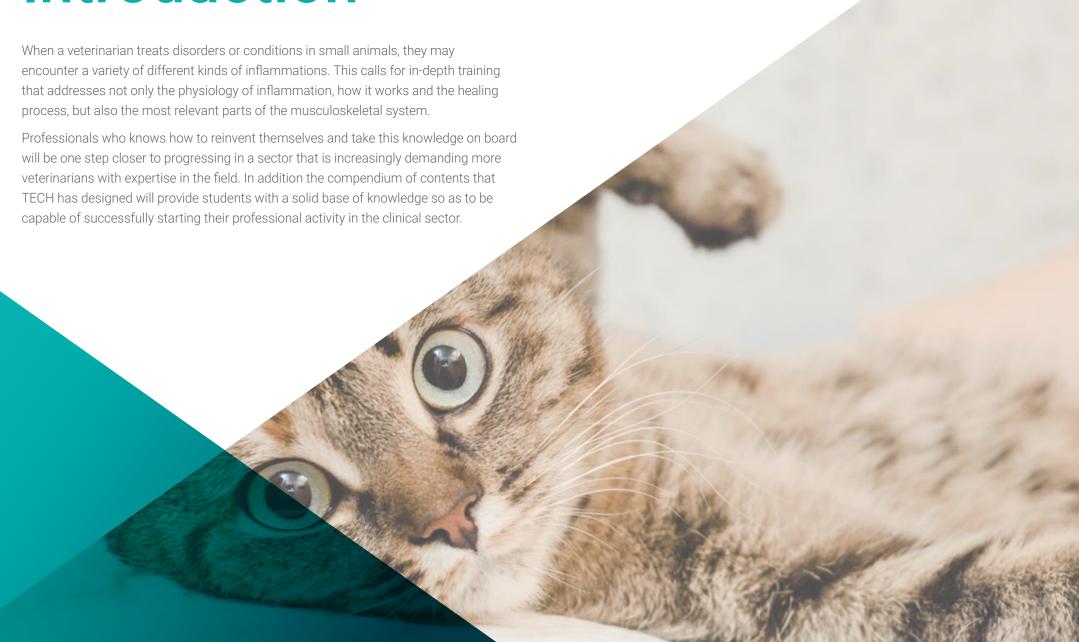
» Exams: online

Website: www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/musculoskeletal-system-tissues-veterinary-rehabilitation

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# tech 06 | Introduction

This very complete TECH Postgraduate Certificate was created with the objective of providing veterinary professionals with the vital skills to practice physiotherapy and the rehabilitation of small animals. To this end, it delves into the most relevant aspects of the musculoskeletal system in rehabilitation therapy, factors which are completely necessary for veterinarians to be able to specialize in this field.

The main aspects of functional anatomy will be addressed during the training course, expanding student's knowledge of the main external skeletal references, as well as the most important muscle groups and their main function in the organism.

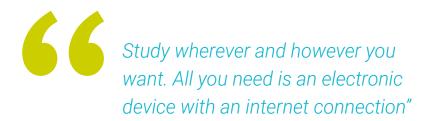
Therefore, this Postgraduate Certificate will generate specialized knowledge of the concepts related to the structure and function of the musculoskeletal system. This information is essential for the veterinarian in order to understand the how it works and the repair system.

On the other hand, and taking into account the fact that veterinarians working in rehabilitation will encounter inflammation of different kinds, we will work and deepen their undrstanding of the physiology of inflammation, how it works and the healing process.

All these contents, which have been created with the utmost scientific rigor using the the most up-to-date research, will be taught in a completely online training course which has been specially designed to lead veterinarians to success in their daily practice.

This Postgraduate Certificate in **The Musculoskeletal System and Tissues in Veterinary Rehabilitation** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by experts in the Musculoskeletal System and Tissues in Veterinary Rehabilitation
- The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- New developments in The Musculoskeletal System and Tissues in Veterinary Rehabilitation
- Practical exercises where self-assessment can be used to improve learning
- Special emphasis on innovative methodologies in the Musculoskeletal System and Tissues in Veterinary Rehabilitation
- 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



# Introduction | 07 tech



In the highly competitive world of work, training is the only element by which good professionals can differentiate themselves"

The program includes, in its teaching staff, professionals belonging to the field of veterinary medicine, who bring their vast work experience to this training course, in addition to recognized specialists from reference societies and prestigious universities.

The multimedia content, developed using the latest educational technology, will provide professionals with situated 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 specialist must try to solve the different professional practice situations that arise during the academic year. To do so, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in the Musculoskeletal System and Tissues in Veterinary Rehabilitation.

If you want to work in Animal Rehabilitation, it is crucial that you investigate everything related to tissues and the musculoskeletal system.

We have been training the best veterinarians for years. Join our select group of students.





TECH designs all its courses based on the latest developments in the profession with the main objective of providing veterinary professionals with up-to-date and complete skills that allow them to develop their activity with a higher degree of success. In this way, and for this Postgraduate Certificate in particular, professionals who decide to take it will acquire a solid knowledge base in everything related to the Musculoskeletal System and Tissues of Small Animals. This knowledge will allow students to grow in the profession and position themselves in the labor market.



# tech 10 | Objectives



# **General Objectives**

- Generate specialized knowledge on veterinary physiotherapy and rehabilitation
- Examine the main anatomical bone references
- Determine the main muscles and nerves involved in movement



All the specifics regarding the musculoskeletal systems of small animals condensed into a very high-level training"



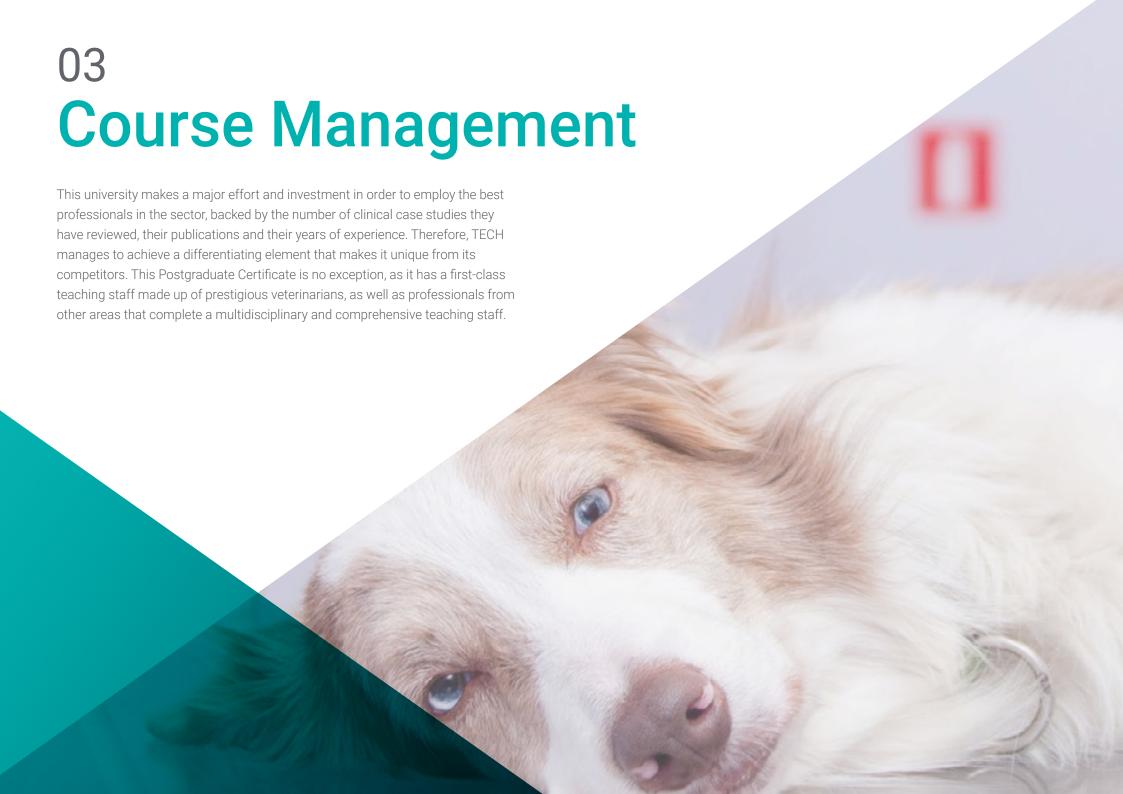


# Objectives | 11 tech



# **Specific Objectives**

- Determine the use of Physiotherapy in Small Animals
- Examine the main anatomical bone references and the different muscle groups
- Analyze the movement of each muscle group
- Develop the most important concepts related to Rehabilitation
- Address muscle components
- Analyze the different phases of inflammation





# tech 14 | Course Management

## Management



## Dr. Ceres Vega-Leal, Carmen

- Veterinarian in the Physiotherapy and Rehabilitation Service at Clínica Veterinaria A Raposeira, Vigo (Pontevedra)
- Veterinarian in Tierklinik Scherzingen, Freiburg (Germany)
- Degree in Veterinary Medicine from the Faculty of Veterinary Medicine of León in 2008
- Master's Degree in Physiotherapy and Rehabilitation of Small Animals, Complutense University of Madrid
- Master's Degree in Veterinary Physiotherapy and Rehabilitation for Dogs and Cats, Complutense University of Madrid
- Postgraduate Diploma in Bases of Physiotherapy and Animal Rehabilitation, Complutense University of Madrid 2014

#### **Professors**

#### Dr. Pascual Veganzones, María

- Head veterinarian at the Narub Rehabilitation and Hydrotherapy Center
- Manager and Coordinator of the Rehabilitation and Physiotherapy service at home, Animal Nutrition in Vetterapia Animal
- Head of the veterinary clinic at Centro Veterinario Don Pelanas. Animal Rehabilitation and Physiotherapy Service
- Graduate in Veterinary Medicine from the University of Leon
- Postgraduate course in Rehabilitation and Veterinary Physiotherapy in Small Animals, FORVET school

#### Dr. Laliena Aznar, Julia

- Head of the Rehabilitation Service, Veterinary Hospital Anicura Valencia Sur. Valencia
- I-VET academy teacher in Rehabilitation classes of the Veterinary Technical Assistant postgraduate course
- Degree in Veterinary from the University of Zaragoza
- Master's Degree in Small Animal Clinic I and II
- Postgraduate Certificate in Small Animal Veterinary Rehabilitation
- Postgraduate Certificate in Clinical Diagnosis in the Canine and Feline Patient

### **Professors**

#### Dr. Picón Costa, Marta

- Outpatient Rehabilitation and Physiotherapy Service in Seville and Cadiz areas
- Veterinarian by the Faculty of Veterinary Medicine of Alfonso X the Wise
- Postgraduate Diploma in Physiotherapy and Animal Rehabilitation, Complutense University of Madrid

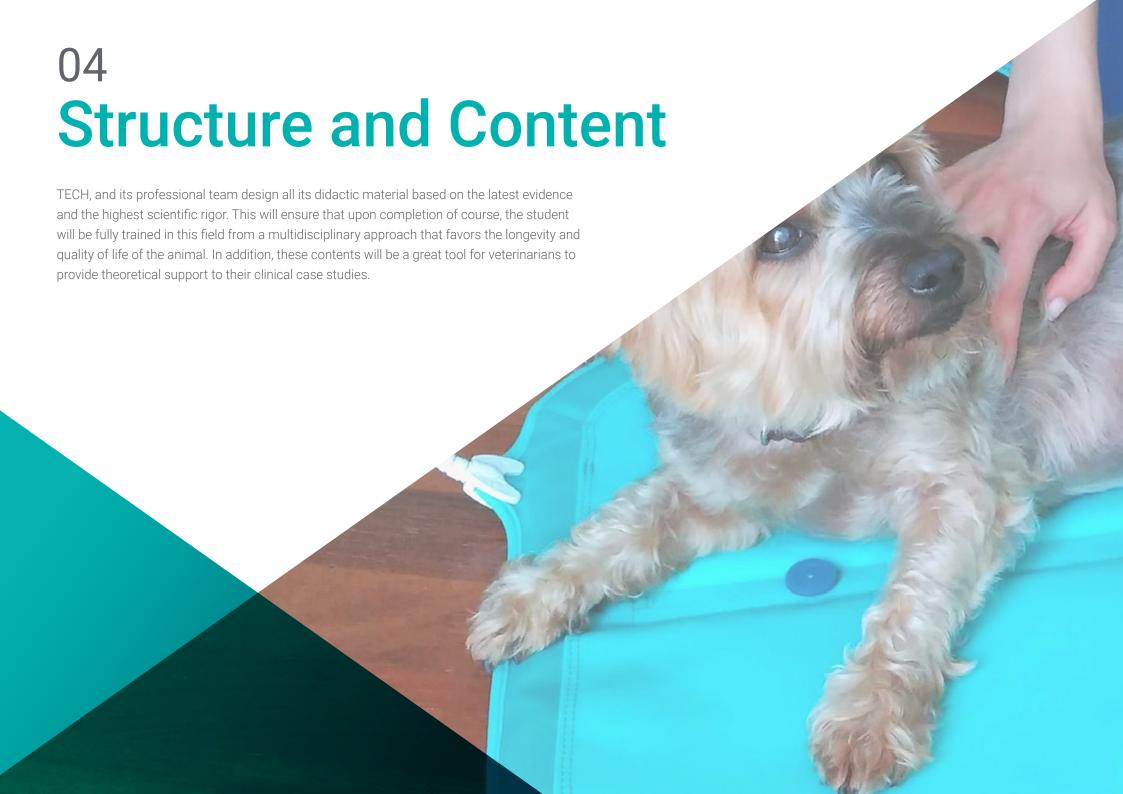
### Dr. Hernández Jurado, Lidia

- Co-owner and head of the Animal Physical Rehabilitation Service of the Amodiño Veterinary Clinic in Lugo
- Graduate in Veterinary Medicine from the University of Santiago de Compostela
- Degree in Biology from the University of Santiago de Compostela
- Specialization Postgraduate Certificate in Small Animal Rehabilitation

## Dr. Rodríguez-Moya Rodríguez, Paula

- Veterinarian at the Rehabcan Animal Rehabilitation and Physiotherapy Center. Traditional Chinese veterinary medicine service
- Graduate in Veterinary Medicine, Catholic University of Valencia
- Specialty in Traditional Chinese Medicine by Chi Institute. Certified acupuncturist. Certified Food Therapist
- Postgraduate Degree in Physiotherapy and Rehabilitation of Small Animals by Euroinnova Business School





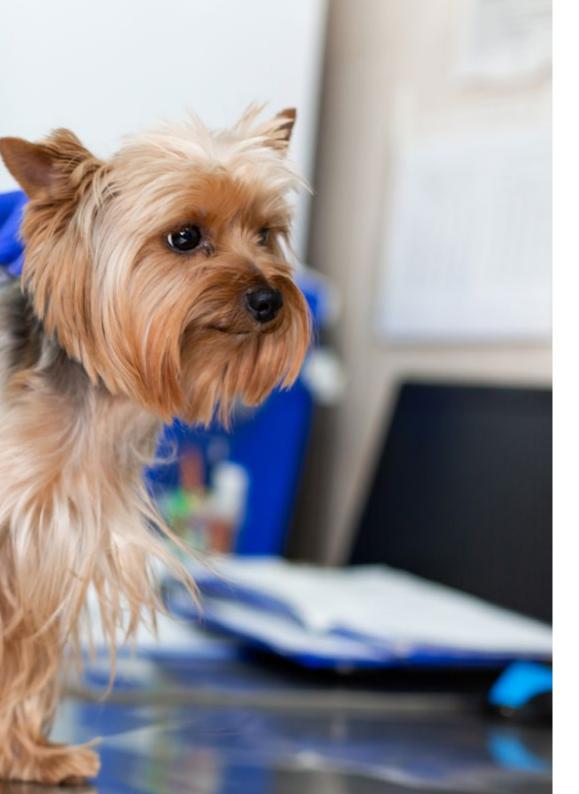


# tech 18 | Structure and Content

# **Module 1.** Veterinary Physiotherapy and Rehabilitation. Functional Anatomy in Small Animals

- 1.1. Physiotherapy and Rehabilitation of Small Animals
  - 1.1.1. Introduction
  - 1.1.2. Medical History
    - 1.1.2.1. Veterinary Rehabilitation and Physiotherapy
    - 1.1.2.2. Species Susceptible to be Treated with Physiotherapy
    - 1.1.2.3. Objectives of Physiotherapy
    - 1.1.2.4. Techniques in Veterinary Physiotherapy
    - 1.1.2.5. Indications of Physiotherapy
- 1.2. Morphology, Structure and Function
  - 1.2.1. Bone
  - 1.2.2. Joints
  - 1.2.3. Muscle
- 1.3. The Skeleton of the Dog. Important Anatomical Bone References
  - 1.3.1. Head and Vertebrae
  - 1.3.2. Thoracic Limb
  - 1.3.3. Pelvic Limb
- 1.4. Head and Neck Muscle
  - 1.4.1. Head Muscles
  - 1.4.2. Motor Muscles of the Head
  - 1.4.3. Neck Muscles
- 1.5. Trunk and Tail Muscles
  - 1.5.1. Muscles of the Spine
  - 1.5.2. Thoracic Muscles
  - 1.5.3. Abdominal Muscles
  - 1.5.4. Tail Muscles
- 1.6. Thoracic Limb Muscles
  - 1.6.1. Thoracic Girdle Muscles
  - 1.6.2. Shoulder Muscles
  - 1.6.3. Elbow Muscles
  - 1.6.4. Muscles of Carpus and Fingers





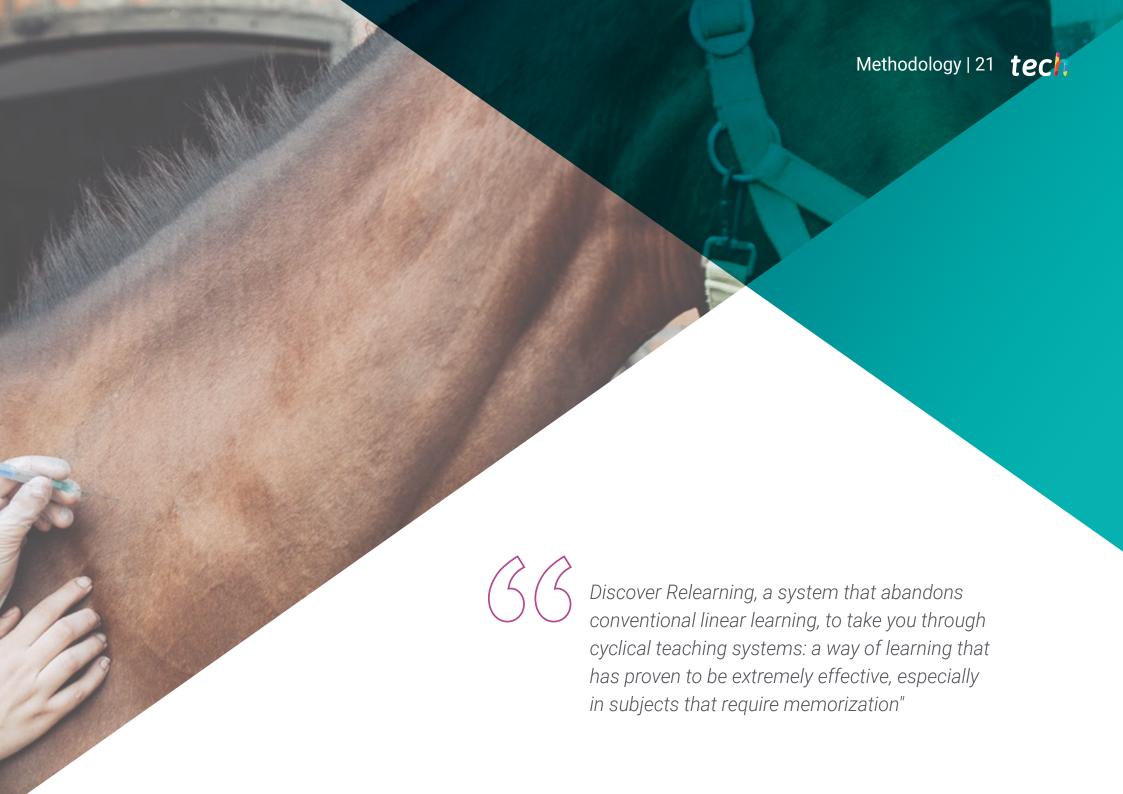
# Structure and Content | 19 tech

- 1.7. Pelvic Limb Muscles
  - 1.7.1. Pelvic Girdle Muscles
  - 1.7.2. Muscles of the Hip
  - 1.7.3. Muscles of the Knee
  - 1.7.4. Muscles of Tarsus and Fingers
- 1.8. Innervation and Vascularization
  - 1.8.1. Brachial Plexus
  - 1.8.2. Lumbosacral Plexus
  - 1.8.3. Other Important Nerves
- 1.9. Skeletal Muscle Contraction
  - 1.9.1. Mechanism of Muscle Contraction
  - 1.9.2. Types of Muscle Contraction
  - 1.9.3. Definitions
- 1.10. Physiology of Inflammation
  - 1.10.1. What Is Inflammation?
  - 1.10.2. Phases of Inflammation
  - 1.10.3. Tissue Repair



The best contents on the university landscape condensed into a six-week training course"



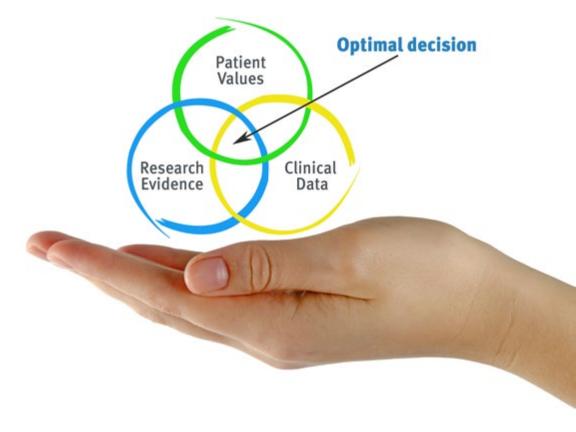


# tech 22 | Methodology

#### 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.



# Methodology | 25 tech

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.

# tech 26 | Methodology

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**

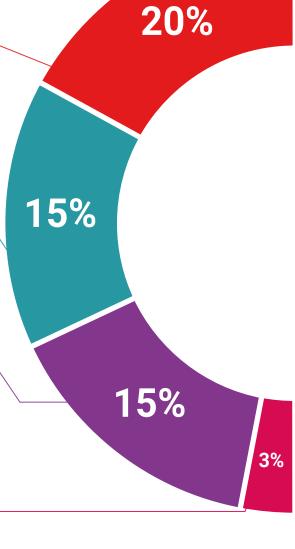
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch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

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



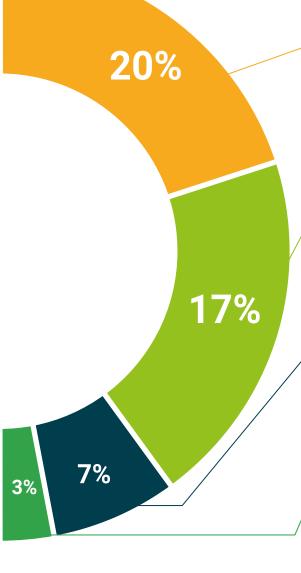
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







# tech 30 | Certificate

This **Postgraduate Certificate in the Musculoskeletal System and Tissues in Veterinary Rehabilitation** 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 The Musculoskeletal System and Tissues in Veterinary Rehabilitation

Official No of hours: 150 h.



<sup>\*</sup>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 The Musculoskeletal System and Tissues in Veterinary Rehabilitation

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

