



Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and Rehabilitation

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-locomotor-pathologies-sport-horse-diagnosis-treatment-rehabilitation

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Certificate

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## tech 06 | Introduction

In order to achieve a correct treatment and rehabilitation of the pathologies of the sport horse, it is necessary to make a correct diagnosis. Therefore, it is of vital importance that physiotherapists are specialized in the possible locomotor pathologies, and are able to diagnose them in time. For this, a correct anamnesis, clinical examination and use of the correct diagnostic tools must be carried out.

This Postgraduate Diploma addresses in detail the most relevant pathologies and the most appropriate diagnostic modalities of the musculoskeletal system from the point of view of an equine physiotherapist. The study of musculoskeletal problems in the horse is a complex process, but of great incidence in Equine Medicine. It is one of the most frequent causes of decreased performance in this species and, therefore, can represent a significant economic loss for the owner in the case of competition or race horses.

This Postgraduate Diploma provides students with specialized tools and skills to successfully develop their professional activity, works on key competencies such as knowledge of the reality and daily practice of the professional, and develops responsibility in the monitoring and supervision of their work, as well as communication skills within the essential teamwork.

In addition, as it is an online Postgraduate Diploma, the student is not conditioned by fixed timetables or the need to move to another physical location, but can access the contents at any time of the day, balancing their work or personal life with their academic life.

This Postgraduate Diploma in Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and Rehabilitation contains the most complete and up-to-date educational program on the market. The most important features include:

- Practical cases presented by experts in equine physiotherapy and rehabilitation
- 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.
- Practical exercises where self-assessment can be used to improve learning.
- Special emphasis on innovative methodologies in locomotor pathologies of the sport horse, in diagnosis, treatment and 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



Don't miss the opportunity to take with us this Postgraduate Diploma in Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and Rehabilitation. It's the perfect opportunity to advance your career"



This Postgraduate Diploma is the best investment you can make when selecting a refresher program to update your knowledge in Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and Rehabilitation"

It includes in its teaching staff professionals belonging to the field of Physiotherapy, who bring to this program the experience of their work, as well as recognized specialists from leading societies and prestigious 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 learning 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 throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system developed by renowned and experienced experts in diagnosis, treatment and rehabilitation of locomotor pathologies of the sport horse.

This program comes with the best teaching material, providing you with a contextual approach that will facilitate your learning.

This 100% online Postgraduate
Diploma will allow you to balance
your studies with your professional
work while expanding your
knowledge in this field.





## tech 10 | Objectives



## **General Objectives**

- Establish the basis for obtaining and reading diagnostic images
- Acquire knowledge of the diagnostic technique and its clinical application
- Assess the different pathologies and their clinical significance
- Provide the basis on which to establish an adequate physiotherapeutic treatment
- Develop the most common pathologies of the locomotor system in the equine athlete, their diagnosis and possibilities of conventional treatments and physiotherapy
- Present new techniques for the diagnosis and monitoring of pathology lesions
- Propose new treatments based on publications and analyze previous treatments
- Establish general recommendations for the design of treatment and rehabilitation of injuries



A unique, key, and decisive training experience to boost your professional development"





## Module 1. Diagnostic Imaging Oriented to the Diagnosis of Problems Susceptible to Physiotherapy Treatment

- Establish a protocol for diagnostic imaging screening
- Identify which technique is necessary in each case
- Generate specialized knowledge in each anatomical area
- Establish a diagnosis that helps to better treat the patient
- Determine the various diagnostic techniques and the contributions each makes to the examination
- Examine the normal anatomy of the different areas to be explored in the different imaging modalities
- Recognize individual anatomical variations
- Assess incidental findings and their possible clinical impact
- Establish the significant alterations in the different diagnostic modalities and their interpretation.
- Determine an accurate diagnosis to assist in the establishment of an appropriate treatment

## Module 2 and 3. Common Injuries in Sport Horses: Diagnosis, Conventional Treatment, Rehabilitation Programs and Physiotherapy Thoracic Limb. Part I and Pelvic Limb. Part II

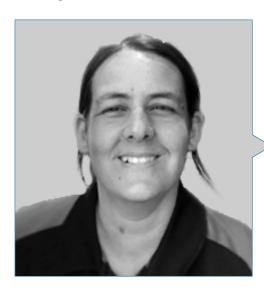
- Present the most frequent pathologies by region, as well as their etiopathology, diagnosis, treatment and rehabilitation
- Recognize clinical signs associated to each pathology
- Evaluate treatment options for each pathology according to scientific publications and experience
- Compile images by pathology to present examples of clinical cases
- Establish differential diagnoses that cause similar clinical signs
- Develop different therapies for each pathology
- Generate methodical knowledge for the diagnosis of forelimb lameness
- Determine guidelines for the design of individualized rehabilitation programs





## tech 14 | Course Management

### Management



### Dr. Hernández Fernández, Tatiana

- PhD in Veterinary Medicine from the UCM
- Diploma in Physiotherapy at the URJC
- Degree in Veterinary Medicine from the UCM
- Professor at the Complutense University of Madrid of: Expert in Equine Physiotherapy and Rehabilitation, Expert in Bases of Animal Rehabilitation and Physiotherapy, Expert in Physiotherapy and Rehabilitation of Small Animals, Training Diploma in Podiatry and Shoeing
- Resident in the area of Equidae at the Clinical Veterinary Hospital of the UCM
- Practical experience of more than 500 hours in hospitals, sports centers, primary care centers and human physical therapy clinics.
- More than 10 years working as a specialist in rehabilitation and physiotherapy

### **Professors**

### Dr. Argüelles Capilla, David

- PhD in Veterinary Medicine from the Autonomous University of Barcelona (UAB)
- Degree in Veterinary Medicine from the Autonomous University of Barcelona (UAB)
- Master's Degree in Equine Medicine and Surgery from the UAB
- Finnish Equine Veterinary Postgraduate Diploma: Hevossairauksien Eirokoiseläinlääkari.
- Member of MRVCS, AVEE and ECVS
- Speaker at national and international congresses and courses on equine surgery and sports medicine
- Equine Surgeon and Distinguished Research Professor- HCV of the University of Cordoba."

### Ms. Boado Lama, Ana

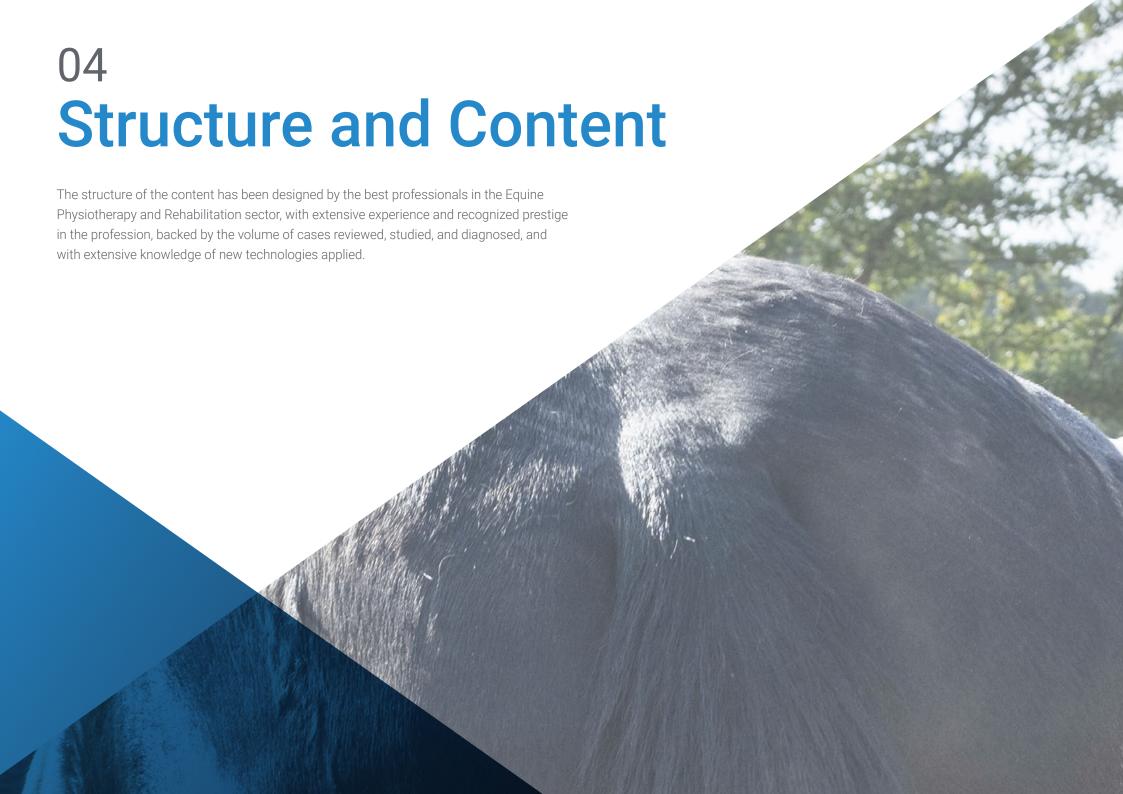
- Graduated from the Complutense University of Madrid.
- Internship at the Animal Health Trust, Newmarket
- Residency in Orthopedics at the University of Edinburgh, UK.
- Certificate in Equine Surgery (Orthopedics) from the Royal College of Veterinary Surgeons, Uk.
- Advanced Practitioner of Equine Surgery (Orth) (RCVS)
- Diploma in Sports Medicine and Rehabilitation (American and European)
- Member of the British Veterinary Association (BEVA) and the Spanish Association of Equine.
- Speaker at international and national congresses and courses
- Teaching during residency fourth and fifth year students at the University of Edinburgh and postgraduate Master's students
- Teacher in CPD for veterinarians in the field of equine traumatology.
- Teacher in Master's Degree in Physiotherapy at the Complutense University of Madrid
- Specialized Equine Sports Medicine and Rehabilitation Service (August 2008-present). "

### Degree in Goyoaga Elizalde, Jaime

- Graduated in Veterinary Medicine in 1986
- Associate Professor in the Department of Animal Medicine and Surgery. Faculty of Veterinary Sciences. U.C.M. Since 1989
- Stays abroad at the University of Bern, Germany (veterinary clinic Dr. Cronau) and the United States (University of Georgia)
- Spanish Certificate in Equine Clinic
- Assistance work at the HCV Faculty of Veterinary Medicine of Madrid UCM since 1989
- Chief of the Large Animal Surgery Service of said institution
- Professor attached to the Diagnostic Imaging Service of the HCV Faculty of Veterinary Medicine of Madrid UCM."

### Dr. Luna Correa, Paulo Andrés

- Graduate in Veterinary Medicine, National University of Rio Cuarto URC, Córdoba, Argentina
- Postgraduate in Physiotherapy and Rehabilitation of Sport Equine, in IACES, with Equidynamics by MV Marta García Piqueres, Madrid, Spain.
- Master's Degree in Equine Sports Medicine, University of Cordoba UCO, Spain
- Associate Professor in the Department of Domestic Animal Anatomy at the National University of Rio Cuarto, UNRC, Córdoba, Argentina - 2019
- 2018-2020 Equine Physiotherapy and Rehabilitation Practice in my personal venture: eKine."





## tech 18 | Structure and Content

## **Module 1.** Diagnostic Imaging Oriented to the Diagnosis of Problems Susceptible to Physiotherapy Treatment

- 1.1. Radiology. Radiology of the Phalanges I
  - 1.1.1. Introduction
  - 1.1.2. Radiographic Technique
  - 1.1.3. Radiology of the Phalanges I
    - 1.1.3.1. Radiographic Technique and Normal Anatomy
    - 1.1.3.2. Incidental Findings
    - 1.1.3.3. Significant Findings
- 1.2. Radiology of the Phalanges II. Navicular Disease and Laminitis
  - 1.2.1. Radiology of the Third Phalanx in Cases of Navicular
    - 1.2.1.1. Radiologic Changes in Navicular Disease
  - 1.2.2. Radiology of the Third Phalanx in Cases of Laminitis
    - 1.2.2.1. How to Measure Changes in the Third Phalanx with Good Radiographs
    - 1.2.2.2. Evaluation of Radiographic Alterations
    - 1.2.2.3. Assessment of Corrective Hardware
- 1.3. Radiology of the Fetlock and Metacarpus/Metatarsus
  - 1.3.1. Radiology the Fetlock
    - 1.3.1.1. Radiographic Technique and Normal Anatomy
    - 1.3.1.2. Incidental Findings
    - 1.3.1.3. Significant Findings
  - 1.3.2. Radiology of the Metacarpus/Metatarsus
    - 1.3.2.1. Radiographic Technique and Normal Anatomy
    - 1.3.2.2. Incidental Findings
    - 1.3.2.3. Significant Findings
- 1.4. Radiology of the Carpus and Proximal Area (Elbow and Shoulder)

- 1.4.1. Radiology the Carpus
  - 1.4.1.1. Radiographic Technique and Normal Anatomy
  - 1.4.1.2. Incidental Findings
  - 1.4.1.3. Significant Findings
- 1.4.2. Radiology of the Proximal Area (Elbow and Shoulder)
  - 1.4.2.1. Radiographic Technique and Normal Anatomy
  - 1.4.2.2. Incidental Findings
  - 1.4.2.3. Significant Findings
- 1.5. Radiology the Hock and Stifle
  - 1.5.1. Radiology of the Hock
    - 1.5.1.1. Radiographic Technique and Normal Anatomy
    - 1.5.1.2. Incidental Findings
    - 1.5.1.3. Significant Findings
  - 1.5.2. Radiology of the Stifle
    - 1.5.2.1. Radiographic Technique and Normal Anatomy
    - 1.5.2.2. Incidental Findings
    - 1.5.2.3. Significant Findings
- 1.6. Radiology of the Spine
  - 1.6.1. Radiology the Neck
    - 1.6.1.1. Radiographic Technique and Normal Anatomy
    - 1.6.1.2. Incidental Findings
    - 1.6.1.3. Significant Findings
  - 1.6.2. Radiology the Dorsum
    - 1.6.2.1. Radiographic Technique and Normal Anatomy
    - 1.6.2.2. Incidental Findings
    - 1.6.2.3. Significant Findings
- .7. Musculoskeletal Ultrasound General aspects
  - 1.7.1. Obtaining and Interpretation of Ultrasound Images
  - 1.7.2. Ultrasound of Tendons and Ligaments
  - 1.7.3. Ultrasound of Joints, Muscles and Bone Surfaces



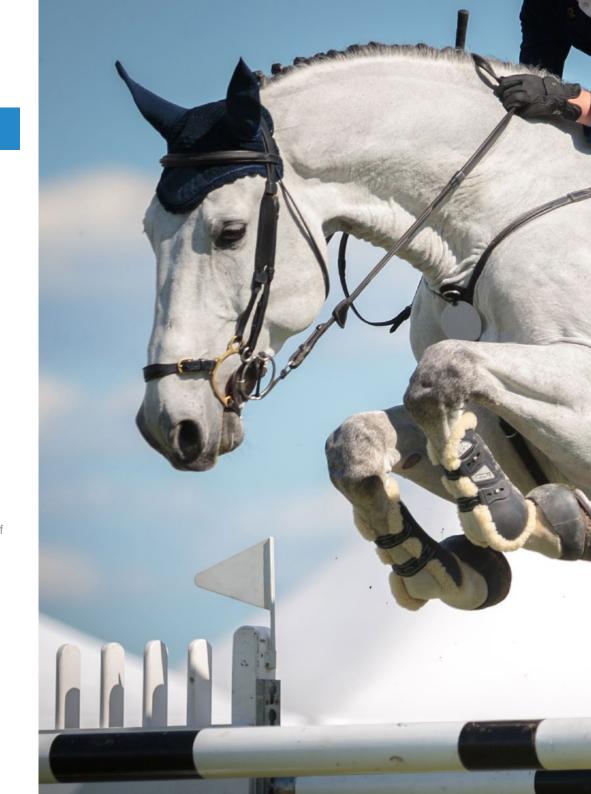
## Structure and Content | 19 tech

- 1.8. Thoracic Limb Ultrasound
  - 1.8.1. Normal and Pathologic Images in the Thoracic Limb
    - 1.8.1.1. Hoof, Pastern and Fetlock
    - 1.8.1.2. Metacarpus
    - 1.8.1.3. Carpus, Elbow and Shoulder
- 1.9. Ultrasound of the Pelvic Limb, Neck and Dorsum
  - 1.9.1. Normal and Pathological Images in the Pelvic Limb and Axial Skeleton
    - 1.9.1.1. Metatarsus and Tarsus
    - 1.9.1.2. Stifle, Thigh and Hip
    - 1.8.1.3 Neck, Dorsum and Pelvis
- 1.10. Other Diagnostic Imaging Techniques: Magnetic Resonance Imaging, Computed Axial Tomography, PET
  - 1.10.1. Description and Uses of Different Techniques
  - 1.10.2. Magnetic Resonance
    - 1.10.2.1. Acquisition Technique Cuts and Sequences
    - 1.10.2.2. Image Interpretation
    - 1.10.2.3. Artifacts in Interpretation
    - 1.10.2.4. Significant Findings
  - 1.10.3. CAT
    - 1.10.3.1. Uses of CT in the Diagnosis of Musculoskeletal System Injuries
  - 1.10.4. Gammagraphy
    - 1.10.4.1. Uses Gammagraphy in the Diagnosis of Musculoskeletal System Injuries
  - 1.10.5. Gammagraphy
    - 1.10.5.1. Uses Gammagraphy in the Diagnosis of Musculoskeletal System Injuries

## tech 20 | Structure and Content

**Module 2.** Common Injuries in Sport Horses: Diagnosis, Conventional Treatment, Rehabilitation Programs and Physiotherapy. Thoracic Limb Part I

- 2.1. Introduction
- 2.2. Hoof
  - 2.2.1. Capsule: Laminitis, Quarters, Cancker
  - 2.2.2. Arthrosis
  - 2.2.3. Collateral
  - 2.2.4. Deep Flexor
  - 2.2.5. Podotrochlear Apparatus
  - 2.2.6. Phalanges
- 2.3. Metacarpo-Phalangeal Joint
- 2.4. Digital Sheath
- 2.5. Metacarpal Region
  - 2.5.1. Superficial Digital Flexor
  - 2.5.2. Deep Digital Flexor
  - 2.5.3. Ligament Check
  - 2.5.4. Suspensory Ligament
- 2.6. Pathology of the Carpus
- 2.7. Carpal Sheath
- 2.8. Radius, Elbow and Shoulder Pathology
- 2.9. Conventional Treatments of the Most Frequent Pathologies of the Thoracic Limb and Their Monitoring
- 2.10. Physiotherapeutic Treatments, Rehabilitation Protocols and Physiotherapy Treatment of the Most Frequent Pathologies of the Thoracic Limb
  - 2.10.1. Particularities According to Sport Discipline: Dressage/Jumping/Raid/ Complete/Speed Races





## Structure and Content | 21 tech

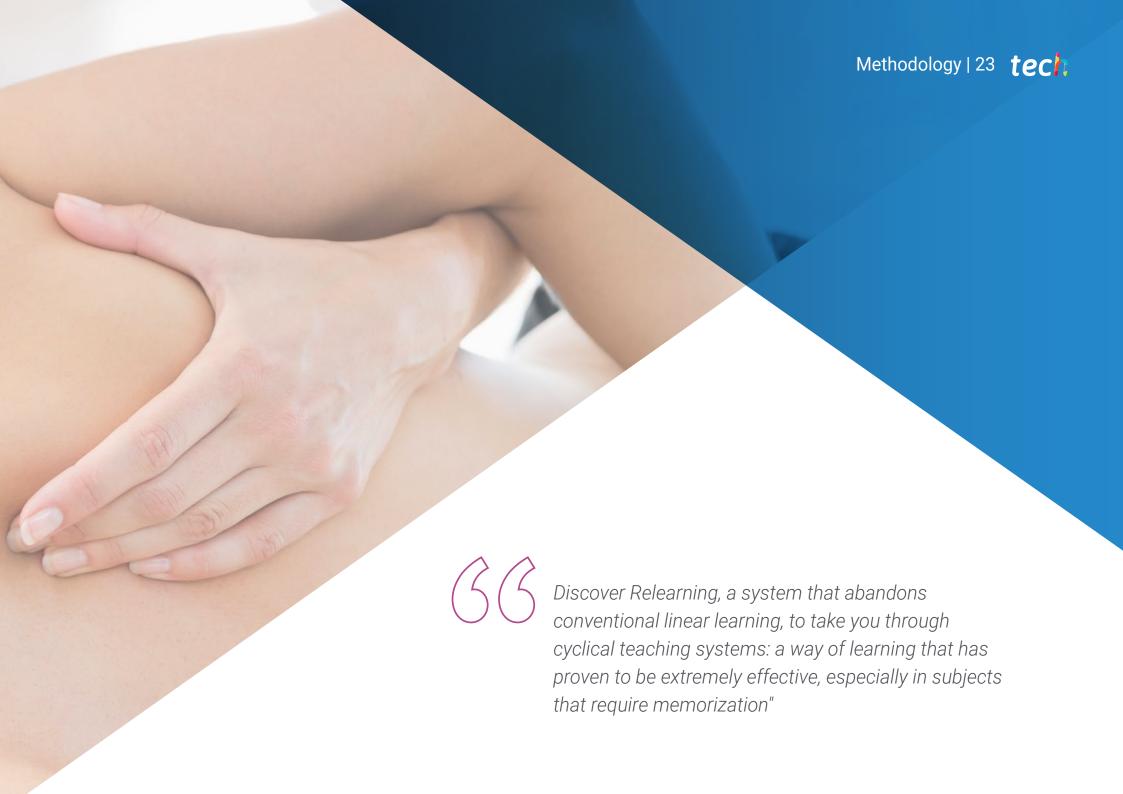
## **Module 3.** Common Injuries in Sport Horses: Diagnosis, Conventional Treatment, Rehabilitation Programs and Physiotherapy. Pelvic Limb. Part II

- 3.1. Introduction
- 3.2. Common Pathologies Distal to the Tarsus in the Pelvic Limb
  - 3.2.1. Hoof
  - 3.2.2. Metacarpo-Phalangeal Joint
  - 3.2.3. Sheath and Tendons
- 3.3. Suspensory Ligament of the Fetlock
- 3.4. Tarsal Pathology
- 3.5. Tibia and Stifle Pathology
- 3.6. Hip and Pelvis Pathology
- 3.7. Spine Pathology
  - 3.7.1. Cervical Pathology
  - 3.7.2. Toracic Pathology
    - 3.7.2.1. Spinal Processes
    - 3.7.2.2. Joint Facets
    - 3.7.2.3. Vertebral Bodies
  - 3.7.3. Lumbo-Sacral-Iliac
- 3.8. Conventional Treatments of the Most Frequent Pathologies of the pelvic Limb and Spine
  - 3.8.1. Arthrosis
  - 3.8.2. Bone Tissue
  - 3.8.3. Soft Tissues
- 3.9. Physiotherapeutic Treatments, Rehabilitation Protocols of the Most Frequent Pathologies of the Pelvic Limb and Spine
  - 3.9.1. Particularities According to Sports Discipline
- 3.10. Monitoring of Pelvic Limb and Spine Injuries



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.



## tech 24 | Methodology

### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists 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, trying to recreate the real conditions of professional physiotherapy 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. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
- 2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist 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.** Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more 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.

The physiotherapist/kinesiologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



## Methodology | 27 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 we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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 our 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 really 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.



### **Physiotherapy Techniques and Procedures on Video**

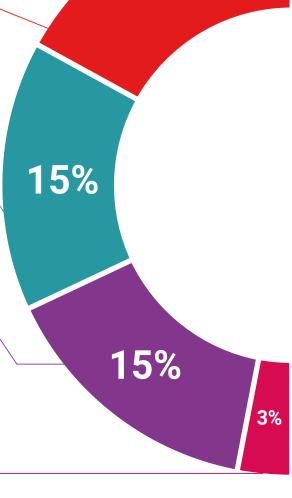
TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can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



#### **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 unique multimedia content presentation training system 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.



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 on the usefulness of learning by observing experts.

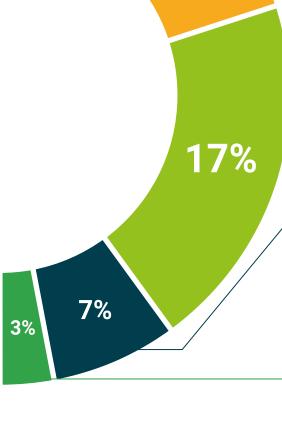
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.





20%





## tech 32 | Certificate

This Postgraduate Diploma in Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and 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 Diploma** issued by **TECH Technological University** via tracked delivery.

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

Title: Postgraduate Diploma in Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and Rehabilitation.

Official No of hours: 450 h.



<sup>\*</sup>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.



## Postgraduate Diploma

Locomotor Pathologies of the Sport Horse, Diagnosis, Treatment and Rehabilitation

» Modality: online

» Duration: 6 months

» Certificate: **TECH Technological University** 

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

