**Postgraduate Diploma** Horse Functional Anatomy, Biomechanics and Training



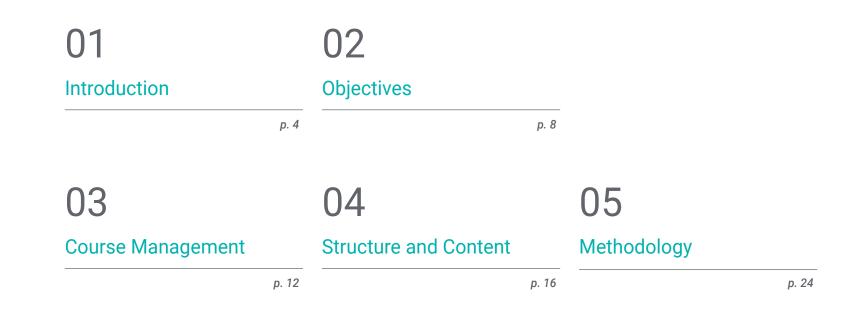


# **Postgraduate Diploma** Horse Functional Anatomy, Biomechanics and Training

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

Website: www.techtitute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-horse-functional-anatomy-biomechanics-training

# Index



06 Certificate

# 01 Introduction

Detailed knowledge of the anatomy of horses is essential for safe education that does not put the health of these animals at risk, especially those involved in professional sports and who may overexert themselves during these activities. Joining this community of learners will allow students to develop the professional skills needed to deal with these animals.



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Equine Rehabilitation is a growing discipline that requires trained professionals to care for horses"

# tech 06 | Introduction

This Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training approaches this discipline through the experience of several internationally accredited rehabilitation specialists, including information that cannot be found in any other online or classroom program, deleivered by a faculty of the highest level.

The field of Horse Functional Anatomy, Biomechanics and Training has experienced enormous growth in recent years, currently representing a clinical speciality widely demanded by owners, riders and other equestrian professionals. One of its main pillars is an exhaustive and meticulous knowledge of the horse's anatomy, both from the functional point of view as well as its biomechanical behavior.

The movement of the horse is developed fundamentally in three gaits: walk, trot and canter. However, as in human sport, each equestrian discipline requires specific biomechanics and therefore has specific locomotor requirements. Understanding this facilitates an understanding of appropriate movement pattern or, on the contrary, the detection of a possible limiter of sports performance. All this has a very important implications for the clinical interpretation of numerous pathologies of the musculoskeletal apparatus of the horse.

Likewise, achieving optimal sporting performance of a sports horse depends to a large extent on proper training planning. With proper and individualized planning, in addition to achieving performance appropriate to the genetic potential of the horse, the risk of fatigue, exhaustion and, therefore, musculoskeletal injuries and overtraining will be reduced. It is important to know how to enhance the three basic capabilities of an athlete: endurance or aerobic capacity, speed or anaerobic capacity and strength.

This Postgraduate Diploma provides students with specialist tools and skills to enhance their professional practice and work on key competencies such as knowledge of the day-to-day realities of veterinary professionals and responsibility in the monitoring and supervision of their work, as well as communication skills for effective teamwork. This **Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training** contains the most complete and up-to-date scientific program on the

- The examination of practical cases presented by experts in equine physiotherapy and rehabilitation
- Graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- The latest news on horse biomechanics and training

market. The most important features include:

- Practical exercises where self-assessment can be carried out to improve learning
- Special emphasis on innovative methodologies in horse biomechanics and training
- 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 this Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training with us. It's the perfect opportunity to advance your career"

## Introduction | 07 tech

This Postgraduate Certificate 100% online and will enable you to combine your work and studies while increasing your knowledge in this field" This program comes with the best educational material, providing you with a contextual approach that will facilitate your learning.

Access this complete Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training and avoid potential injuries in these animals.

The faculty includes veterinary professionals, who bring their professional experience to this program, as well as renowned 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 education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in horse functional anatomy, biomechanics and training.

# 02 **Objectives**

This Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training is aimed at facilitating the performance of the veterinary professional with the latest advances and most innovative treatments in the sector.

Objectives | 09 tech

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Our goal is to offer quality professional development so that our students become the best in their profession"

# tech 10 | Objectives



## **General objectives**

- Examine the different methods used for objective measurement of the locomotor pattern of horses by means of biomechanical studies
- Analyze the functional anatomy and biomechanics of the main locomotor units in horses
- Define movement patterns in the horse's natural gaits
- Examine the locomotor demands and specific exercises in the main equestrian sports disciplines
- Plan and time a training program according to horse fitness levels, competitive objectives and the type of equestrian discipline
- Design stress tests according to the equestrian discipline, deciding on parameters to be measured and how to interpret them
- Establish the diagnostic protocol to be followed in the case of a horse with loss/ reduction/ lack of sporting performance
- Develop protocols to treat and prevent pathologies associated with physical exercise and training, including overtraining syndrome
- Analyze what motor control is and its importance in locomotion
  and rehabilitation
- Evaluate the main tools and exercises of active therapy
- Develop clinical and in-depth reasoning on the use of therapeutic exercises in the horse
- Generate autonomy when developing active re-education programs



# Objectives | 11 tech



## **Specific Objectives**

## Module 1. Applied Anatomy and Biomechanics of Horses

- Characterize the gaits of walk, trot and canter from a kinetic and kinematic point of view
- Examine the influence of neck position on the biomechanics of the dorsum and pelvis
- Analyze the biomechanical characteristics of the pelvic limb and its relation to walk, trot and canter quality
- Analyze locomotor modifications associated with speed and training in horses
- Characterize the biomechanical disorders found in claudication
- Develop variations in movement quality induced by patient age and genetics
- Evaluate the influence of the morphological characteristics of the hoof on the biomechanics of the thoracic limb
- Analyze the different types of shoeing and their effect on the biomechanical characteristics of horse hooves
- Establish the interaction of the saddle and rider on the horse's locomotor pattern
- Evaluate the effect of different embouchures and performance systems on the characteristics of horse movement

### Module 2. Exercise Physiology and Training

- Examine respiratory, cardiovascular and musculoskeletal changes in response to submaximal and maximal, short and long duration, and intermittent exercises
- Understand the importance of histological and biochemical muscle changes with training and their impact on aerobic capacity and the respiratory, cardiovascular and metabolic response to exercise
- Establish how heart rate and blood lactate monitoring is performed, as well as measurement of ventilatory volumes and VO2 oxygen consumption

- Identify the mechanisms of thermoregulation of sport horses, associated pathologies, consequences and action protocols in case of thermoregulatory alterations
- Specify training strategies to develop oxidative potential, strength and anaerobic capacity
- Present strategies to reduce or delay the onset of fatigue during various types of exercise

## Module 3. Therapeutic Exercise and Active Kinesitherapy

- Analyze the neuromuscular physiology involved in motor control
- Identify the consequences of disrupted motor control
- Define the specific tools that are used and how to include them in a motor control re-education program
- Examine the elements to consider when designing an active kinesitherapy program
- Define Core Training techniques and their application as a therapeutic exercise
- Define proprioceptive facilitation techniques and their application as a therapeutic exercise
- Evaluate the characteristics and biomechanical implications of some of the main exercises from a therapeutic point of view
- Evaluate the effects of active work

# 03 Course Management

The faculty includes leading experts in Horse Functional Anatomy, Biomechanics and Training, who will share their professional experience throughout this program. They are world-renowned professionals from different countries with proven theoretical and practical professional experience.

We have the most complete and successful faculty in the academic world"

# tech 14 | Course Management

## Management



## Dr. Hernández Fernández, Tatiana

- Diploma in Physiotherapy at the URJC
- Degree in Veterinary Medicine from the UCM
- Resident in the field 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



## Course Management | 15 tech

## Professors

## Dr. Gómez Lucas, Raquel

- Degree in Veterinary Medicine from the Complutense University Madrid
- Graduate of the American College of Veterinary Sports Medicine and Rehabilitation (ACVSMR)
- Head of the Sports Medicine and Diagnostic Imaging Service of the Large Animal Area of the Clinical Veterinary Hospital of the Alfonso X El Sabio University

## Dr. Muñoz Juzgado, Ana

- Degree in Veterinary Medicine from the University of Córdoba
- Professor in the Department of Animal Medicine and Surgery. Faculty of Veterinary Medicine at the University of Cordoba

## Dr. Gutiérrez Cepeda, Luna

- Degree in Veterinary Medicine from the Complutense University Madrid
- Official Master's Degree in Veterinary Science Research from the Complutense University
  of Madrid
- Master's Degree in Physiotherapy at the Autonomous University of Barcelona
- Diploma in Acupuntura Veterinaria por The International Veterinary Acupuncture Society (IVAS)
- Postgraduate in Physiotherapy of Large Animals (Horses) by the Autonomous University of Barcelona
- Kinesiotaping Instructor for horses by the International Kinesiotaping Society

# 04 Structure and Content

The content has been structured and designed by leading professionals in Functional Anatomy, who have extensive experience and excellent standing within the profession, backed by a large volume of cases reviewed, studied, and diagnosed, and extensive knowledge of new technologies applied to veterinary medicine.

Structure and Content | 17 tech

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

# tech 18 | Structure and Content

## Module 1. Applied Anatomy and Biomechanics of Horses

- 1.1. Introduction to the Biomechanics of Horses
  - 1.1.1. Kinematic Analysis
  - 1.1.2. Kinetic Analysis
  - 1.1.3. Other Methods of Analysis
- 1.2. Biomechanics of Natural Gaits
  - 1.2.1. Step
  - 1.2.2. Trot
  - 1.2.3. Gallop
  - Thoracic Limb
  - 1.3.1. Functional Anatomy
  - 1.3.2. Biomechanics of the Proximal Third
  - 1.3.3. Biomechanics of the Distal Third and the Digit
- 1.4. Pelvic Limb

1.3.

- 1.4.1. Functional Anatomy
- 1.4.2. Reciprocal Apparatus
- 1.4.3. Biomechanical Considerations
- 1.5. Head, Neck, Dorsum and Pelvis
  - 1.5.1. Functional Anatomy of the Head and Neck
  - 1.5.2. Functional Anatomy of the Dorsum and Pelvis
  - 1.5.3. Position of the Neck and Influence on the Mobility of the Dorsum
- 1.6. Variations of the Locomotor Pattern I
  - 1.6.1. Age
  - 1.6.2. Speed
  - 1.6.3. Training
  - 1.6.4. Genetics
- 1.7. Variations of the Locomotor Pattern II
  - 1.7.1. Thoracic Limb Claudication
  - 1.7.2. Pelvic Limb Claudication
  - 1.7.3. Compensatory Clauses
  - 1.7.4. Modifications Associated With Neck and Dorsal Pathologies
- 1.8. Variations of the Locomotor Pattern III
  - 1.8.1. Trimming and Rebalancing of the Hoof
  - 1.8.2. Horseshoeing





- 1.9. Biomechanical Considerations Associated With Equestrian Disciplines
  - 1.9.1. Jump
  - 1.9.2. Dressage
  - 1.9.3. Races and Speed
- 1.10. Applied Biomechanics
  - 1.10.1. Rider Influence
  - 1.10.2. Effect of the Frame
  - 1.10.3. Working Tracks and Floors
  - 1.10.4. Auxiliary Aids: Mouthpieces and Yields

### Module 2. Exercise Physiology and Training

- 2.1. Systemic Adaptations to Physical Exercises of Different Intensity and Duration
  - 2.1.1. Introduction to Exercise Physiology and Comparative Exercise Physiology: What Makes the Horse the Ultimate Athlete and What are the Consequences for the Horse?
  - 2.1.2. Respiratory Adaptations to Exercise2.1.2.1. Airway Mechanics2.1.2.2. Physiological Adjustments During Exercise
  - 2.1.3. Cardiovascular Adaptations to Exercise2.1.3.1. Importance of the Cardiovascular System in Aerobic Capacity

2.1.3.2. Interpretation of Heart Rate in Exercises of Different Intensity

- 2.1.4. Metabolic Response to Exercise
- 2.1.5. Thermoregulation During and After Exercise
- 2.2. Systemic Adaptations to Training
  - 2.2.1. Response of Respiratory Function to Training
  - 2.2.2. Cardiovascular Changes Associated with Training and their Consequences
  - 2.2.3. Metabolic Responses to Training and Associated Mechanisms Intervention of Training-Associated Muscle Modification
  - 2.2.4. Adaptive Response of Thermoregulatory Mechanisms to Training and Implications for the Equine Athlete
  - 2.2.5. Adaptations of Musculoskeletal Tissues to Training: Tendons, Ligaments, Bones, Joints

## tech 20 | Structure and Content

- 2.3. Design of an Exercise Test or Stress Test to Assess Physical Fitness Level
  - 2.3.1. Types of Stress Tests
    - 2.3.1.1. Treadmill and Field Stress Tests
    - 2.3.1.2. Maximum and Submaximal Intensity Tests
  - 2.3.2. Variables to Consider in the Design of a Stress Test
  - 2.3.3. Characteristics of Stress Tests for Speed, Jumping, Dressage and Endurance Horses
- 2.4. Physiological Parameters to Be Monitored During and After a Stress Test and Interpretation
  - 2.4.1. Respiratory Measures
    - 2.4.1.1. Ventilatory Measurements: Minute Ventilation, Tidal Volume
    - 2.4.1.2. Measurements of Pulmonary Mechanics
    - 2.4.1.3. Arterial Blood Gas Concentration
    - 2.4.1.4. Oxygen Consumption (VO2), Peak Consumption and Peak Consumption
  - 2.4.2. Cardiovascular Measures
    - 2.4.2.1. Heart Rate
      - 2.4.2.2. ECG
  - 2.4.3. Metabolic Measurements
  - 2.4.4. Gait Analysis
  - 2.4.5. Calculation and Interpretation of Functionality Indices Derived from Heart Rate and Lactate Response to Stress Testing: V2, V4, HR2, HR4, V150, V200
- 2.5. Diagnostic Approach to Loss/Lack of Performance Use of Stress Tests for the Diagnosis of Reduced Performance
  - 2.5.1. Factors Limiting Sports Performance for Each Competition
  - 2.5.2. Diagnostic Approach to the Horse with Loss of Performance: Evaluation at Rest
  - 2.5.3. Diagnostic Approach to the Horse with Loss of Performance: Evaluation during Exercise
  - 2.5.4. Stress Tests for the Diagnosis of Loss of Performance
  - 2.5.5. Usefulness of Serial Stress Testing and Calculation of Functional Indices for Early Diagnosis of Performance Loss

- 2.6. General Concepts of Training: Training of the Three Essential Capacities: Endurance, Speed and Strength
  - 2.6.1. Basic Principles of Sports Training
  - 2.6.2. Capacity Training
    - 2.6.2.1. Resistance Training
    - 2.6.2.2. Speed Training
    - 2.6.2.3. Strength Training
  - 2.6.3. Periodization of Training: Programming Using Data Obtained in a Stress Test
- 2.7. Specific Training for Dressage, Show Jumping and Eventing
  - 2.7.1. Dressage
    - 2.7.1.1. Systemic Adaptations to Exercise during Dressage Testing
    - 2.7.1.2. Stress Tests Specific to the Dressage Horse
    - 2.7.1.3. Training for Dressage Horses
  - 2.7.2. Show Jumping
    - 2.7.2.1. Systemic Adaptations to Exercise during Show Jumping Trials
    - 2.7.2.2. Specific Stress Tests for Dressage Horses
    - 2.7.2.3. Training for Show Jumping Horses
  - 2.7.3. Complete Horseback Riding Competition2.7.3.1. Systemic Adaptations to Exercise During a Full Competition2.7.3.2. Specific Stress Tests for the All-Round Horse
    - 2.7.3.3. Training for All-Round Horses
- 2.8. Specific Training for Endurance and Speed
  - 2.8.1. Resistance and Endurance
    - 2.8.1.1. Systemic Adaptations to Exercise during Endurance Tests of Different Durations
    - 2.8.1.2. Specific Stress Tests for Resistance Horses
    - 2.8.1.3. Training for Resistance Horses
  - 2.8.2. Training for Racehorses
    - 2.8.2.1. Systemic Adaptations to Exercise During Speed Testing
    - 2.8.2.2. Specific Stress Tests for Racehorses
    - 2.8.2.3. Training for Racehorses

## Structure and Content | 21 tech

- 2.9. Overtraining Syndrome
  - 2.9.1. Definition and Types of Overtraining Syndrome
  - 2.9.2. Etiology and Pathophysiology
  - 2.9.3. Hematological, Endocrine, Muscular and Behavioral Changes Compatible with Overtraining
- 2.10. Excessive Fatigue or Exhaustion: Diagnosis, Treatment and Prevention of Pathologies Associated with Physical Exercise
  - 2.10.1. Definition of Exhaustion vs. Fatigue Pathophysiology of the Exhaustion and Post-Exhaustion Syndrome
  - 2.10.2. Pathophysiological Mechanisms Associated With Water-Electrolyte Imbalances and Energy Substrate Depletion
  - 2.10.3. Specific Pathologies Within Exhaustion Syndrome: Exercise: Hyperthermia/Heat Stroke, Flutter or Synchronous Diaphragmatic Flutter, Colic, Diarrhea, Laminitis, Metabolic Encephelopathy, Renal Failure
  - 2.10.4. Medical Management of the Exhausted Horse
  - 2.10.5. Exhaustion Prevention Strategies: Before, During and After Competition

### Module 3. Therapeutic Exercise and Active Kinesitherapy

- 3.1. Physiological Basis of Motor Control I
  - 3.1.1. Sensory Physiology
    - 3.1.1.1. What is it and Why is it Important? Sensation Vs. Perception
    - 3.1.1.2. Interconnection Between the Sensory and Motor System
  - 3.1.2. Sensory Afferent Fibers
  - 3.1.3. Sensory Receptors
    - 3.1.3.1. Definition, Types and Characteristics
    - 3.1.3.2. Cutaneous Sensory Receptors
    - 3.1.3.3. Muscle Proprioceptors
- 3.2. Physiological Basis of Motor Control II
  - 3.2.1. Afferent Sensory Tracts
    - 3.2.1.1. Dorsal Spine
    - 3.2.1.2. Spinothalamic Tracts
    - 3.2.1.3. Spinocerebellar Tracts
    - 3.2.1.4. Other Afferent Sensory Tracts

- 3.2.2. Efferent Motor Tracts
  - 3.2.2.1. Corticospinal Tract
  - 3.2.2.2. Rubrospinal Tract
  - 3.2.2.3. Reticulospinal Tract
  - 3.2.2.4. Vestibulospinal Tract
  - 3.2.2.5. Tectospinal Tract
  - 3.2.2.6. Importance of the Pyramidal and Extrapyramidal System in Animals
- 3.2.3. Neuromotor Control, Proprioception and Dynamic Stability
- 3.2.4. Fascia, Proprioception and Neuromuscular Control
- 3.3. Motor Control Operation and Alteration
  - 3.3.1. Motor Patterns
  - 3.3.2. Levels of Motor Control
  - 3.3.3. Theories of Motor Control
  - 3.3.4. How Motor Control is Altered?
  - 3.3.5. Dysfunctional Patterns
  - 3.3.6. Pain and Motor Control
  - 3.3.7. Fatigue and Motor Control
  - 3.3.8. The Gamma Circuit
- 3.4. Motor Control: Disorder and Re-Education
  - 3.4.1. Consequences of Disrupted Motor Control
  - 3.4.2. Neuromuscular Re-Education
  - 3.4.3. Learning Principles and Other Theoretical Considerations in Motor Control Re-Education
  - 3.4.4. Assessment and Goals in Motor Control Re-Education
  - 3.4.5. Importance of Rider-Horse Communication in the Neuromotor System
- 3.5. Motor Control Re-Education II: Core Training
  - 3.5.1. Basis of Application
  - 3.5.2. Core Anatomy of the Horse
  - 3.5.3. Dynamic Mobilizations
  - 3.5.4. Facilitation or Strengthening Exercises
  - 3.5.5. Imbalance or Destabilization Exercises

# tech 22 | Structure and Content

- 3.6. Motor Control Re-Education II: Proprioceptive Facilitation Techniques
  - 3.6.1. Basis of Application
  - 3.6.2. Environmental Stimulation Techniques
  - 3.6.3. Use of Proprioceptive or Tactile Stimulators and Wristbands
  - 3.6.4. Use of Unstable Surfaces
  - 3.6.5. Use of Neuromuscular Taping
  - 3.6.6. Use of Resistive Elastic Bands
- 3.7. Training and Active Rehabilitation Programs I
  - 3.7.1. Initial Considerations
  - 3.7.2. The Natural Gaits of the Horse: Biomechanical Aspects to be Considered in Re-Education
    - 3.7.2.1. Walk
    - 3.7.2.2. Trot
    - 3.7.2.3. Canter
  - 3.7.3. Working With the Neck in a Low and Elongated Position: Biomechanical Aspects to Be Considered in Re-Education
  - 3.7.4. Working in Circles: Biomechanical Aspects to Consider in Re-Education
- 3.8. Training and Active Rehabilitation Programs II
  - 3.8.1. The Backward Step: Biomechanical Aspects to Be Considered in Re-Education 3.8.1.1. Initial Considerations
    - 3.8.1.2. Effects from a Biomechanics Perspective
    - 3.8.1.3. Effects from a Neurological Perspective
  - 3.8.2. Two-Track Work: Biomechanical Aspects to Be Considered in Re-Education
  - 3.8.3. Work With Bars and Cavalettis: Biomechanical Aspects to Be Considered in Re-Education
  - 3.8.4. Slope Work: Biomechanical Aspects to Be Considered in Re-Education
  - 3.8.5. Footwork and Use of Auxiliary Renderings: Biomechanical Aspects to be Considered in Re-Education





# Structure and Content | 23 tech

- 3.9. Training and Active Rehabilitation Programs III
  - 3.9.1. Considerations and Objectives in the Design of an Active Rehabilitation Program
  - 3.9.2. Considerations of the Effect of Training on Muscle Physiology
  - 3.9.3. Consideration of the Effect of Training on the Cardiorespiratory System
  - 3.9.4. Considerations of Specific Active Rehabilitation Programs
  - 3.9.5. Effect of the Rider on Posture and Movement

3.10. Hydrotherapy

- 3.10.1. Therapeutic Properties of Water
- 3.10.2. Resting and Exercise Forms of Hydrotherapy
- 3.10.3. Physiological Adaptations to Exercise in Water, With Special Emphasis on Locomotor Adaptations
- 3.10.4. Use of Aquatic Exercise in the Rehabilitation of Tendon Ligament Injuries
- 3.10.5. Use of Aquatic Exercise in the Rehabilitation of pathologies of Dorsal Pathologies
- 3.10.6. Use of Aquatic Exercise in the Rehabilitation of Joint Pathologies
- 3.10.7. Precautions and General Considerations When Designing an Aquatic Exercise Protocol in Musculoskeletal Rehabilitation

This program will allow you to comfortably advance in your career"

# 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.

# Methodology | 25 tech

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"

## tech 26 | 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.



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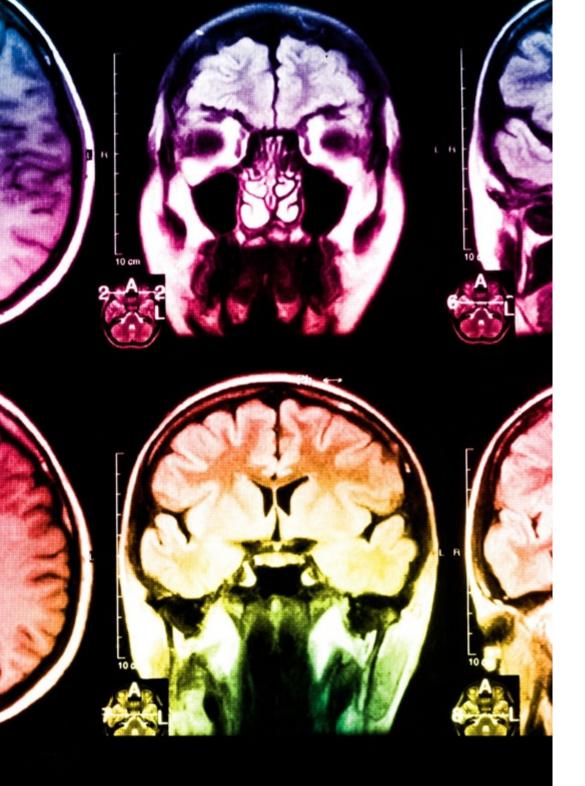
## **Relearning Methodology**

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 | 29 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 30 | 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.

20%

15%

3%

15%

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.

## Methodology | 31 tech



### **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.

20%

7%

3%

17%



### **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 Diploma in Horse Functional Anatomy, Biomechanics and Training guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.



Successfully complete this program and receive your university degree without travel or laborious paperwork"

# tech 34 | Certificate

This **Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training** 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\*.

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Title: Postgraduate Diploma in Horse Functional Anatomy, Biomechanics and Training Official N° of hours: 450 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.

technological university Postgraduate Diploma Horse Functional Anatomy, **Biomechanics and Training** » Modality: online » Duration: 6 months » Certificate: TECH Technological University

- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

**Postgraduate Diploma** Horse Functional Anatomy, Biomechanics and Training

