

Postgraduate Certificate

Therapeutic Exercise in Horses





Postgraduate Certificate Therapeutic Exercise in Horses

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

Website: www.techtute.com/in/physiotherapy/postgraduate-certificate/therapeutic-exercise-horses

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01

Introduction

Therapeutic exercise is essential to maintain physical balance in horses, avoiding possible injuries due to overexertion or promoting a quick recovery in equines. In this sense, this educational program aims to specialize physiotherapists in the most commonly used techniques in this field.





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Better trained physiotherapists will improve the health of horses with physical pathologies. If you want to specialize in this field, don't think twice and join our community of students"

One of the main objectives of this Postgraduate Certificate in Therapeutic Exercise in Horses is to enhance your training by offering a complete course on the locomotion of the horse, as well as improving and maintaining its performance or recovery after an injury.

It must be kept in mind that impaired motor control may trigger locomotor deficits, decreased performance or structural alterations. Therefore, this program will address the factors responsible for this alteration and the pathophysiological mechanism triggered, as well as the importance of its rehabilitation.

Historically, the post-injury rehabilitation process focused on the restoration of muscular strength and endurance and joint flexibility without addressing the role of neuromuscular mechanisms. It is now known that this simplified approach leads to a higher risk of injury and incomplete restoration of function, so it is vital to incorporate specific programs that take into account neuromotor re-education.

Therefore, this course will develop a solid foundation to understand the fundamentals and application of active exercises and tools available to us to establish an active therapeutic approach to restore function and structure. In addition, you will learn how to design and develop training and re-education programs.

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

As it is an online program, students will not be bound by fixed schedules or the need to move to another physical location, but rather, they can access the content at any time of the day, balancing their professional or personal life with their academic life.

This **Postgraduate Certificate in Therapeutic Exercise in Horses** contains the most complete and up-to-date educational program on the market. The most outstanding characteristics of this program are:

- ♦ 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 Therapeutic Exercise in Horses
- ♦ 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 study this Postgraduate Certificate with us. It's the perfect opportunity to advance in your career"

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This course is the best investment you can make in selecting a refresher program to update your knowledge in Therapeutic Exercise in Horses"

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

This 100% online program will allow you to combine your studies with your professional work while increasing your knowledge in this field.

Its teaching staff includes professionals from the field of physiotherapy, who bring to this program the experience of their work, 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 training programmed to train 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 therapeutic exercise.



02 Objectives

The Postgraduate Certificate in Therapeutic Exercise in Horses is aimed at aiding the professional's performance with the latest advances and most innovative treatments in the sector.





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Our goal is to provide quality training so that our students become the best in their profession"



General Objectives

- 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



A training and professional growth pathway that will propel you towards greater competitiveness in the labor market"





Specific Objectives

- ◆ Analyze the neuromuscular physiology involved in motor control
- ◆ Identify the consequences of altered motor control
- ◆ Define what specific tools we have and how we can include them in a motor control re-education program
- ◆ Examine what elements we should 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 teaching staff of this program includes leading experts in Equine Physiotherapy and Rehabilitation who bring to this program the experience of their work. They are world-renowned professionals from different countries with proven theoretical and practical professional experience.



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Our teaching team is the most complete and successful on the educational scene"

Management



Dr. Hernández Fernández, Tatiana

- ♦ PhD in Veterinary Medicine from the UCM
- ♦ Certificate in Physiotherapy at the URJC
- ♦ Degree in Veterinary Medicine from the UCM
- ♦ Professor at the Complutense University of Madrid of: Postgraduate Diploma in Equine Physiotherapy and Rehabilitation, Postgraduate Diploma in Bases of Animal Rehabilitation and Physiotherapy, Postgraduate Diploma 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

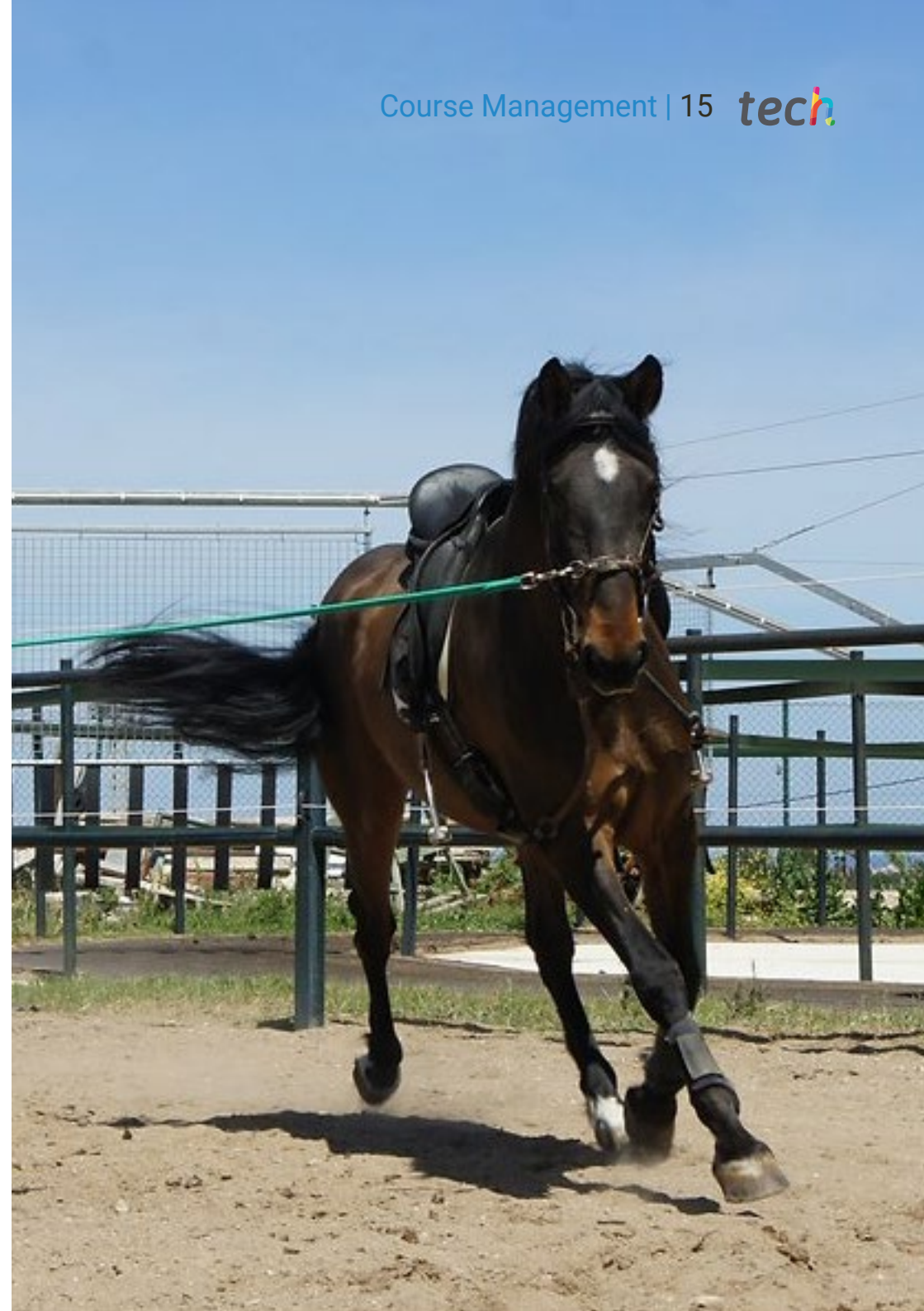
Professors

Dr. Gutiérrez Cepeda, Luna

- ◆ Doctorate in Veterinary from the Complutense University of Madrid.
- ◆ Degree in Veterinary Medicine from the Complutense University Madrid
- ◆ Master's Degree in Veterinary Science Research from the Complutense University of Madrid
- ◆ Master's Degree in Horse Physiotherapy from the Autonomous University of Barcelona
- ◆ Certificate in Acupuntura Veterinaria por The International Veterinary Acupuncture Society (IVAS)
- ◆ Postgraduate Degree in Physiotherapy of Large Animals (Horses) from the Autonomous University of Barcelona
- ◆ Kinesiotaping Instructor for horses by the International Kinesiotaping Society
- ◆ Associate Professor, Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, Complutense University of Madrid since 2014

Dr. Muñoz Juzgado, Ana

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

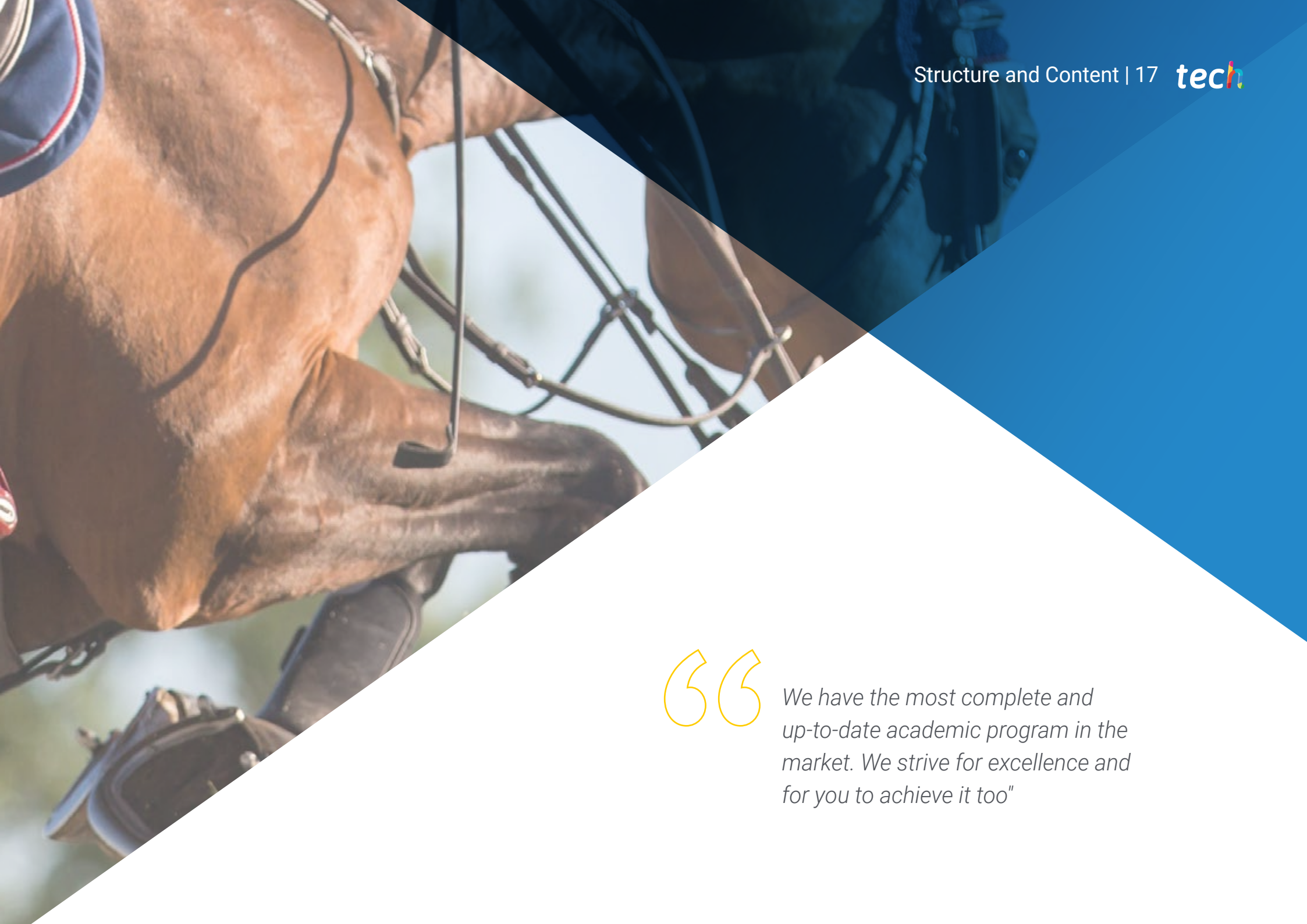


04

Structure and Content

The structure of the content has been designed by the best professionals in the Equine Physiotherapy and Rehabilitation sector, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied.





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

Module 1. Therapeutic Exercise and Active Kinesitherapy

- 1.1. Physiological Basis of Motor Control I
 - 1.1.1. Sensory Physiology
 - 1.1.1.1. What Is It and Why Is It Important? Sensation vs. Perception
 - 1.1.1.2. Interconnection Between the Sensory and Motor System
 - 1.1.2. Sensory Afferent Fibers
 - 1.1.3. Sensory Receptors
 - 1.1.3.1. Definition, Types and Characteristics
 - 1.1.3.2. Cutaneous Sensory Receptors
 - 1.1.3.3. Muscle Proprioceptors
- 1.2. Physiological Basis of Motor Control II
 - 1.2.1. Afferent Sensory Tracts
 - 1.2.1.1. Dorsal Spine
 - 1.2.1.2. Spinothalamic Tracts
 - 1.2.1.3. Spinocerebellar Tracts
 - 1.2.1.4. Other Afferent Sensory Tracts
 - 1.2.2. Efferent Motor Tracts
 - 1.2.2.1. Corticospinal Tract
 - 1.2.2.2. Rubrospinal Tract
 - 1.2.2.3. Reticulospinal Tract
 - 1.2.2.4. Vestibulospinal Tract
 - 1.2.2.5. Tectospinal Tract
 - 1.2.2.6. Importance of the Pyramidal and Extrapyramidal System in Animals
 - 1.2.3. Neuromotor Control, Proprioception and Dynamic Stability
 - 1.2.4. Fascia, Proprioception and Neuromuscular Control
- 1.3. Motor Control. Operation and Alteration
 - 1.3.1. Motor Patterns
 - 1.3.2. Levels of Motor Control
 - 1.3.3. Theories of Motor Control
 - 1.3.4. How Motor Control is Altered?
 - 1.3.5. Disfunctional Patterns
 - 1.3.6. Pain and Motor Control
 - 1.3.7. Fatigue and Motor Control
 - 1.3.8. The Gamma Circuit
- 1.4. Motor Control. Alteration and Re-Education
 - 1.4.1. Consequences of Altered Motor Control
 - 1.4.2. Neuromuscular Re-Education
 - 1.4.3. Learning Principles and Other Theoretical Considerations in Motor Control Re-Education
 - 1.4.4. Assessment and Goals in Motor Control Re-Education
 - 1.4.5. Importance of Rider-Horse Communication in the Neuromotor System
- 1.5. Motor Control. Re-Education II: *Core Training*
 - 1.5.1. Basis of Application
 - 1.5.2. Core Anatomy of the Horse
 - 1.5.3. Dynamic Mobilizations
 - 1.5.4. Facilitation or Strengthening Exercises
 - 1.5.5. Imbalance or Destabilization Exercises
- 1.6. Motor Control. Re-Education II: Proprioceptive Facilitation Techniques
 - 1.6.1. Basis of Application
 - 1.6.2. Environmental Stimulation Techniques
 - 1.6.3. Use of Proprioceptive or Tactile Stimulators and Wristbands
 - 1.6.4. Use of Unstable Surfaces
 - 1.6.5. Use of Neuromuscular Taping
 - 1.6.6. Use of Resistive Elastic Bands
- 1.7. Training and Active Rehabilitation Programs I
 - 1.7.1. Initial Considerations
 - 1.7.2. The Natural Gaits of the Horse: Biomechanical Aspects to be Considered in Re-Education
 - 1.7.2.1. Walk
 - 1.7.2.2. Trot
 - 1.7.2.3. Canter
 - 1.7.3. Working With the Neck in a Low and Elongated Position: Biomechanical Aspects to Be Considered in Reeducation
 - 1.7.4. Working in Circles: Biomechanical Aspects to Consider in Re-Education



- 1.8. Training and Active Rehabilitation Programs II
 - 1.8.1. The Backward Step: Biomechanical Aspects to Be Considered in Re-Education
 - 1.8.1.1. Initial Considerations
 - 1.8.1.2. Effects From a Biomechanics Perspective
 - 1.8.1.3. Effects From a Neurological Perspective
 - 1.8.2. Two-Track Work: Biomechanical Aspects to Be Considered in Re-Education
 - 1.8.3. Work With Bars and Cavalettis: Biomechanical Aspects to Be Considered in Re-Education
 - 1.8.4. Slope Work: Biomechanical Aspects to Be Considered in Re-Education
 - 1.8.5. Footwork and Use of Auxiliary Renderings: Biomechanical Aspects to be Considered in Re-Education
- 1.9. Training and Active Rehabilitation Programs III
 - 1.9.1. Considerations and Objectives in the Design of an Active Rehabilitation Program
 - 1.9.2. Considerations of the Effect of Training on Muscle Physiology
 - 1.9.3. Consideration of the Effect of Training on the Cardiorespiratory System
 - 1.9.4. Considerations of Specific Active Rehabilitation Programs
 - 1.9.5. Effect of the Rider on Posture and Movement
- 1.10. Hydrotherapy
 - 1.10.1. Therapeutic Properties of Water
 - 1.10.2. Resting and Exercise Hydrotherapy Modalities
 - 1.10.3. Physiological Adaptations to Exercise in Water, With Special Emphasis on Locomotor Adaptations
 - 1.10.4. Use of Water Exercise in the Rehabilitation of Tendon Ligament Injuries
 - 1.10.5. Use of Water Exercise in the Rehabilitation of pathologies of Dorsal Pathologies
 - 1.10.6. Use of Water Exercise in the Rehabilitation of Joint Pathologies
 - 1.10.7. Precautions and General Considerations When Designing a Water-Based Exercise Protocol in Musculoskeletal Rehabilitation



This specialization 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.





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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, 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.

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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. 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 Harvard 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.

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.





Expert-Led Case Studies and Case Analysis

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



Testing & Retesting

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



Classes

There is scientific evidence 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.



06 Certificate

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



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

This **Postgraduate Certificate in Therapeutic Exercise in Horses** 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 Therapeutic Exercise in Horses**

Official N° of Hours: **150 h.**



*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.

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



Postgraduate Certificate
Therapeutic Exercise
in Horses

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Postgraduate Certificate

Therapeutic Exercise in Horses