

# Postgraduate Certificate

## Leg Ultrasound in Physiotherapy





## Postgraduate Certificate Leg Ultrasound in Physiotherapy

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

Website: [www.techtitute.com/pk/physiotherapy/postgraduate-certificate/leg-ultrasound-physiotherapy](http://www.techtitute.com/pk/physiotherapy/postgraduate-certificate/leg-ultrasound-physiotherapy)

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# 01

# Introduction

Especially driven by sports practice, patients suffering from various leg conditions are very common in physiotherapy centers, highlighting the importance of having cutting-edge ultrasound devices to detect the injury and provide proper treatment. Consequently, highly specialized physiotherapists in their use are in high demand to ensure the optimal recovery of individuals affected by pathologies in this area. For this reason, TECH has created this program, through which you will acquire the most sophisticated techniques for detecting Tibial Periostitis and Tennis Leg using ultrasound, online and without rigid schedules.





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*The Postgraduate Certificate in Leg Ultrasound for Physiotherapy will offer you the most up-to-date techniques to detect the extent of Tibial Periostitis”*

Tibial Periostitis and various calf pathologies are just a few examples of injuries that occur in the leg and require excellent physiotherapeutic treatment to ensure the recovery of affected individuals. In this regard, ultrasound methods have been perfected to monitor and analyze the response to therapy applied with superb image quality, facilitating decision-making to expedite recovery in the shortest possible time. Given the benefits offered, physiotherapists are compelled to incorporate all the latest ultrasound advances into their professional practice to stay at the forefront of this sector.

Because of that TECH has designed this qualification, through which students will master innovative procedures for examining injuries occurring in different parts of the leg. During 6 intensive weeks of learning, the physiotherapist will adopt the best methods for diagnosing pathologies in the anterior, posterior, and lateral aspects, or learn how to provide appropriate monitoring for patients with Tibial Periostitis using ultrasound. Additionally, they will delve into the implementation of state-of-the-art myofascial sliding tests for the calf-soleus to stimulate this injured area.

All of this is done through a 100% online methodology that allows students to obtain excellent learning without the need for daily commutes to study centers. Likewise, they will have educational resources in formats such as interactive summaries or explanatory videos, enabling the adaptation of teaching to the format that is most effective for acquiring new knowledge.

This **Postgraduate Certificate in Leg Ultrasound in Physiotherapy** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Physical Medicine and Rehabilitation and in Physiotherapy
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



*Master, through this program, the procedures for establishing physiotherapeutic ultrasound-guided follow-up of the patient with the so-called Tennis Leg”*

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*With a 100% online methodology, this qualification will allow you to master the intricacies of Leg ultrasound without having to give up your personal or professional life”*

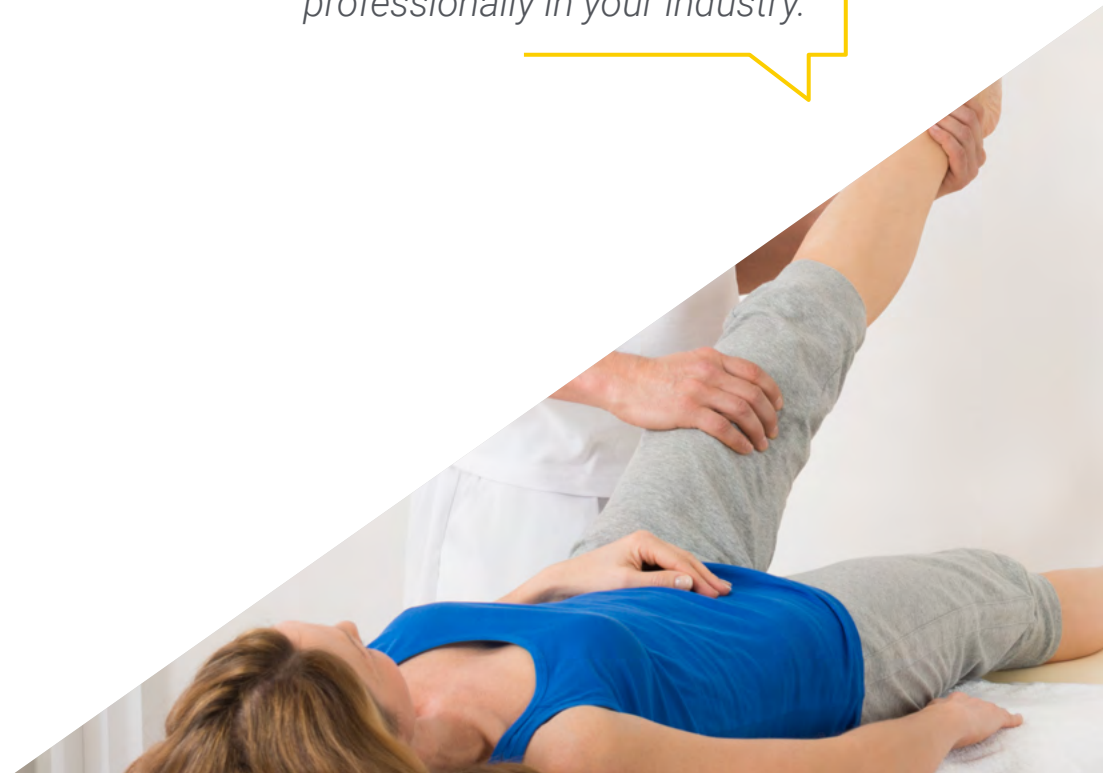
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 during the academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Enjoy an academic program taught by top professionals in the fields of Physical Medicine and Rehabilitation and Physiotherapy.*

*In just 6 weeks, you will acquire valuable skills that will allow you to advance professionally in your industry.*





# 02

# Objectives

TECH has designed this Postgraduate Certificate with the aim of providing physiotherapists with the most advanced knowledge in the diagnosis of leg pathologies through ultrasound devices. Throughout the program, you will enhance your exploration skills for different parts of this area, acquiring a high-level working methodology to boost your professional development. You will achieve this through the following general and specific objectives.







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*Incorporate the latest advances in Leg Ultrasound in Physiotherapy into your daily practice to establish yourself as a cutting-edge professional in your field”*



## General Objectives

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- Learn to locate the different anatomical structures of the region
- Identify pathologies for a correct treatment of ultrasound-guided rehabilitation medicine
- Define the limits of ultrasound
- Learn about the use of ultrasound in the framework of physiotherapist skills



*Effectively address various pathologies in the Leg with the knowledge you will gain in diagnostic techniques through this qualification”*





## Specific Objectives

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- ♦ Learn the echoanatomy of the different structures of the Leg in all its compartments
- ♦ Identify the muscles of the leg and the most common muscular injuries in Legs
- ♦ Describe the normal examination of the structures of the anterior aspect of the Leg
- ♦ Describe the normal examination of the structures of the lateral aspect of the Leg
- ♦ Describe the normal examination of the structures of the posterior aspect of the Leg
- ♦ Learn how to perform ultrasound-guided dynamic assessment tests of the Leg
- ♦ Describe the least common pathologies that can affect the Leg



# 03

## Course Management

To preserve the high educational standard characteristic of TECH's programs, this Postgraduate Certificate is delivered by active specialists in Physical Medicine and Rehabilitation and professional Physiotherapists who have honed their ultrasound skills through daily practice. Additionally, the didactic resources available to students during the course of this qualification are expressly developed by these experts, ensuring that the knowledge they provide aligns with the latest developments in this field.





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*This teaching staff consists of experts with experience in ultrasound for Leg pathologies, who will provide you with the most applicable knowledge for your professional life”*

## Management



### Dr. Castillo Martín, Juan Ignacio

- ♦ Head of Physical Medicine and Rehabilitation Department at 12 de Octubre University
- ♦ Doctor Specialist in Physical and Rehabilitation Medicine, Hospital Complex Ruber Juan Bravo
- ♦ Rehabilitation Physician at the Traffic Accidents Unit of the Ruber Juan Bravo Hospital Complex
- ♦ Rehabilitation Physician at Recoletas Cuenca Hospital
- ♦ Coordinator of continuing education of the Spanish Society of Cardiology in Exercise Testing with Oxygen Consumption
- ♦ Associate Professor in UCM of the Faculty of Medicine
- ♦ Teaching coordinator in continuing education courses at the Health Department of the Community of Madrid: Tertiary prevention in chronic cardiopathic patients. Cardiac Rehabilitation
- ♦ Degree in Medicine and Surgery. University of Salamanca
- ♦ Master's Degree in Cardiac Rehabilitation. SEC-UNED
- ♦ Master in and Disability Assessment UAM
- ♦ Master in Child Disability. UCM
- ♦ PhD in Neuroscience. University of Salamanca
- ♦ Member of the Spanish Society of Cardiology

## Professors

### Dr. Santiago Nuño, Fernando

- ◆ Physiotherapist, Osteopath, Podiatrist and Co-Director of Nupofis Clinic
- ◆ Physiotherapist and podiatrist at Armstrong International Clinic
- ◆ Orthopedist at Ortoaccesible
- ◆ Professor of Musculoskeletal Ultrasound and Guided Infiltrations at UCM and UEM
- ◆ Doctor in Podiatry from UDC
- ◆ Specialized physiotherapist in Traumatology, Neurology, and Sports Injury Rehabilitation at Armstrong International Clinic
- ◆ Own Master's Degree in Advanced Clinical Podiatry from CEU - UCH
- ◆ Own Master's Degree in Clinical Management, Medical and Healthcare Direction from TECH- UCH
- ◆ Own Master's Degree in Musculoskeletal Ultrasound from CEU-UCH
- ◆ Master's Degree in Manual Therapy Specialist from UCM
- ◆ Online Master's Degree in Podiatry Research from URJC
- ◆ Master's Degree in Orthopedic Product Specialist and Supervisor from UCM

### Dr. Casado Hernández, Israel

- ◆ Podiatrist and Podiatry Researcher
- ◆ Director of Vitalpie
- ◆ Podiatrist for youth football clubs such as Getafe CF and AD Alcorcón
- ◆ Associate Professor in university studies
- ◆ Author of over 20 scientific articles and 7 book chapters
- ◆ Doctor in Epidemiology and Clinical Research in Health Sciences from URJC
- ◆ Degree in Podiatric Medicine from Complutense University of Madrid
- ◆ Master's Degree in Podiatry Research from URJC

### Mr. García Expósito, Sebastián

- ◆ Expert in Radiodiagnostic Applications and Techniques
- ◆ Radiodiagnostic Technician at the Women's Center of Sanitas
- ◆ Radiodiagnostic Technician at Hospital de la Zarzuela
- ◆ Graduate in Production of Bioimages from UNLZ

### Ms. Moreno, Cristina Elvira

- ◆ Physiotherapist and Musculoskeletal Ultrasound Expert
- ◆ Physiotherapist at Nupofis Clinic
- ◆ Physiotherapist at Clínica Fisios Islas21
- ◆ Physiotherapist at Más Fisio Clinic
- ◆ Physiotherapist at the Parkinson Association Madrid
- ◆ Graduate in Physiotherapy from UCM
- ◆ Master's Degree in Musculoskeletal Ultrasound in Physiotherapy from CEU San Pablo University

### Mr. Nieri, Martín Alejandro

- ◆ Diagnostic Imaging Technician Expert in Musculoskeletal Ultrasound
- ◆ Diagnostic Imaging Technician at the Son Espases University Hospital
- ◆ CEO of Ultrasound Assistance & Teleradiology Service SL
- ◆ Director of the Quality Control Department in Ultrasound at Ultrasound Assistance & Teleradiology Service SL
- ◆ *Freelance* Diagnostic Imaging Technician
- ◆ Teacher in medical training courses
- ◆ Participation in Ultrasound training courses

**Dr. Pérez Calonge, Juan José**

- ◆ Podiatrist Expert in Integral Foot Surgery
- ◆ Podiatrist at Podológica Gayarre Clinic
- ◆ Co-Author of the article *Direct Examination Technique of Onychomycosis using Potassium Hydroxide Microscopy*
- ◆ Doctor of Health Sciences from UPNA
- ◆ Master's Degree Official in Health Assessment from UCM
- ◆ Official Master's Degree in Advanced Podiatry from CEU
- ◆ Expert Podiatric Surgery from UCM
- ◆ Course in Infiltration of the Foot by UCM

**Ms. Sánchez Marcos, Julia**

- ◆ Physiotherapist, Osteopath, and Pilates Instructor at Clínica Nupofis
- ◆ Physiotherapist and Osteopath at Isabel Amoedo Physiotherapy Clinic
- ◆ Physiotherapist at Vithas Nuestra Señora de Fátima Hospital
- ◆ Physiotherapist at ASPODES-FEAPS
- ◆ Physiotherapist at Fisiosalud Clinic
- ◆ Master's Degree in Electrotherapy from CEU- UCH
- ◆ Expert in Sonographic Anatomy of the Musculoskeletal System from European University
- ◆ Neurodynamics Course by Zerapi Advanced Physiotherapy
- ◆ Percutaneous Therapeutic Electrolysis (EPTE) Course
- ◆ Myofascial and Articular Neurodynamic Fibrolysis "Hooks" Course by Instema
- ◆ Diathermy Course by Helios in Electromedicine







### **Mr. Santiago Nuño, José Ángel**

- ◆ Physiotherapist, Osteopath, Dietitian, Nutritionist, and Co-director of Nupofis Clinic
- ◆ Dietitian and nutritionist in various physiological situations at Medicadiet
- ◆ Postgraduate Certificate in Physiotherapy from CEU San Pablo University
- ◆ Postgraduate Certificate in Human Nutrition and Dietetics from CEU San Pablo University
- ◆ Postgraduate Specialist in Food Exchange System for Diet Preparation and Menu Planning from the UPNA
- ◆ Physiotherapist specializing in Traumatology, Neurology, and Sports Injury Rehabilitation at Armstrong Internacional Clinic
- ◆ Master's Degree in Sports Physiotherapy Specialist from UCM
- ◆ Expert in Traditional Chinese Medicine and Acupuncture for Physiotherapists at UCLM

### **Dr. Teijeiro, Javier**

- ◆ Director and physiotherapist at Atlas Physiotherapy Clinic
- ◆ Physiotherapist and Technical Director of the Physiotherapy Service at the San Pablo and San Lázaro Care Center in Mondoñedo
- ◆ Regional Delegate of the Spanish Society of Ultrasound and Physiotherapy
- ◆ Physiotherapist at the Dinán Viveiro Clinic
- ◆ Ph.D. in Health, Disability, Dependence, and Well-being
- ◆ Master's Degree in Natural Medicine and its Applications in Primary Care from the USC
- ◆ Master's Degree in Pharmacology for Physiotherapists from the University of Valencia
- ◆ Official Master's Degree in Disability and Dependence Intervention from the UDC
- ◆ Master's Degree in Diagnostic Imaging from the University of Valencia
- ◆ Postgraduate Diploma in Musculoskeletal Ultrasound by UFV

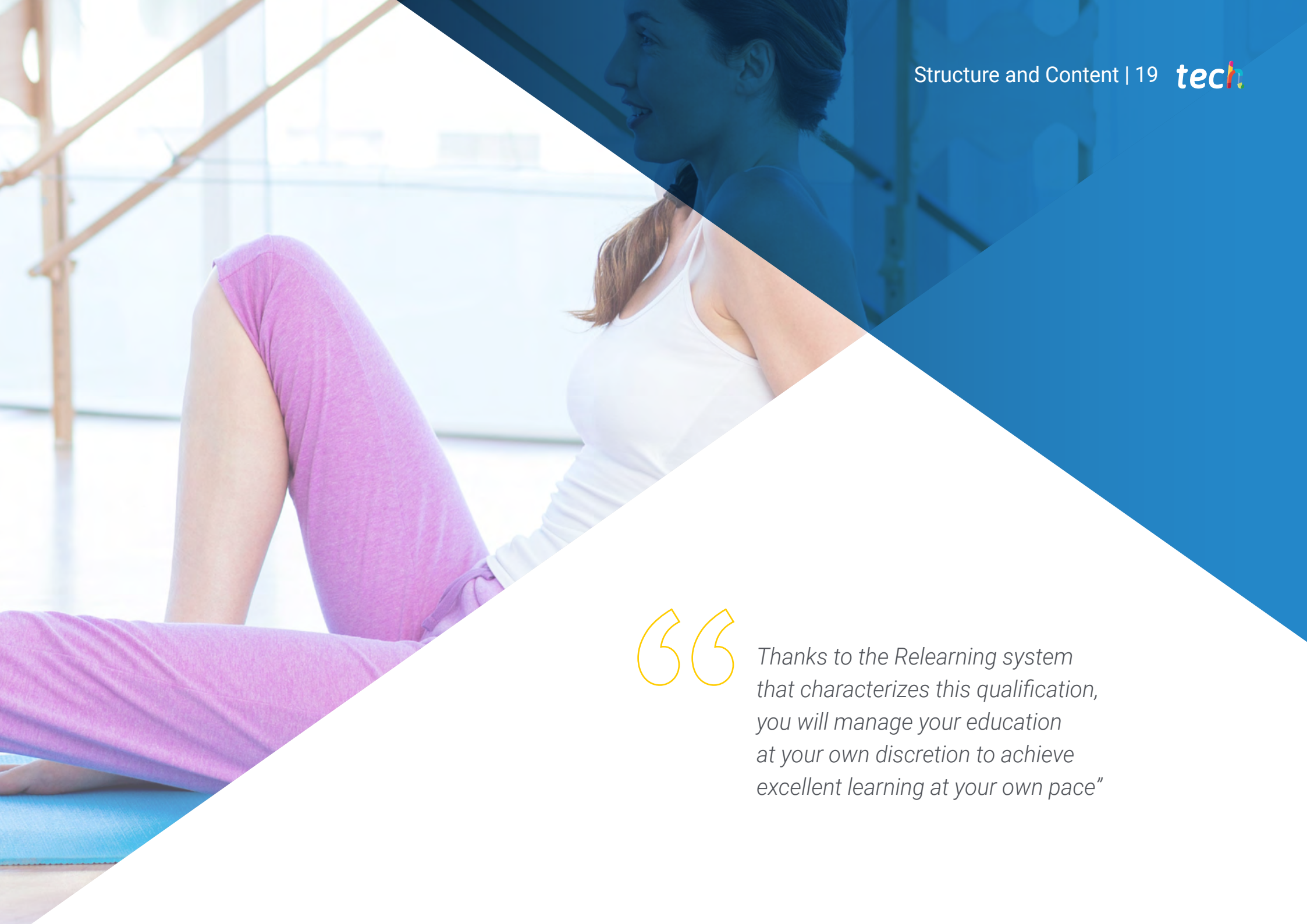
# 04

# Structure and Content

The syllabus of this qualification has been designed with the intention of providing the student with the necessary knowledge to update their competencies in the use of ultrasound for diagnosing, evaluating, and treating various injuries and conditions specific to the Leg. Additionally, the didactic contents that you will study during the course of this Postgraduate Certificate are available in formats such as explanatory videos, supplementary readings, or interactive summaries. With this, combined with a 100% online methodology, TECH's objective is to provide engaging and personalized education.







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*Thanks to the Relearning system that characterizes this qualification, you will manage your education at your own discretion to achieve excellent learning at your own pace”*

## Module 1. Ultrasound of the Lower Limb: Leg

- 1.1. Introduction
- 1.2. Normal Sonoanatomy of the Leg
- 1.3. Examination of the Anterior Aspect Structures
- 1.4. Examination of the Lateral Aspect Structures
- 1.5. Examination of the Posterior Aspect Structures
- 1.6. Leg Pathology
- 1.7. Most Common Pathologies of the Leg
- 1.8. Dynamic Tests on the Leg
- 1.9. Clinical Cases
- 1.10. *In Focus* Video







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*Enjoy innovative didactic content on Leg Ultrasound in Physiotherapy, available in a wide range of textual and interactive formats to facilitate your learning”*

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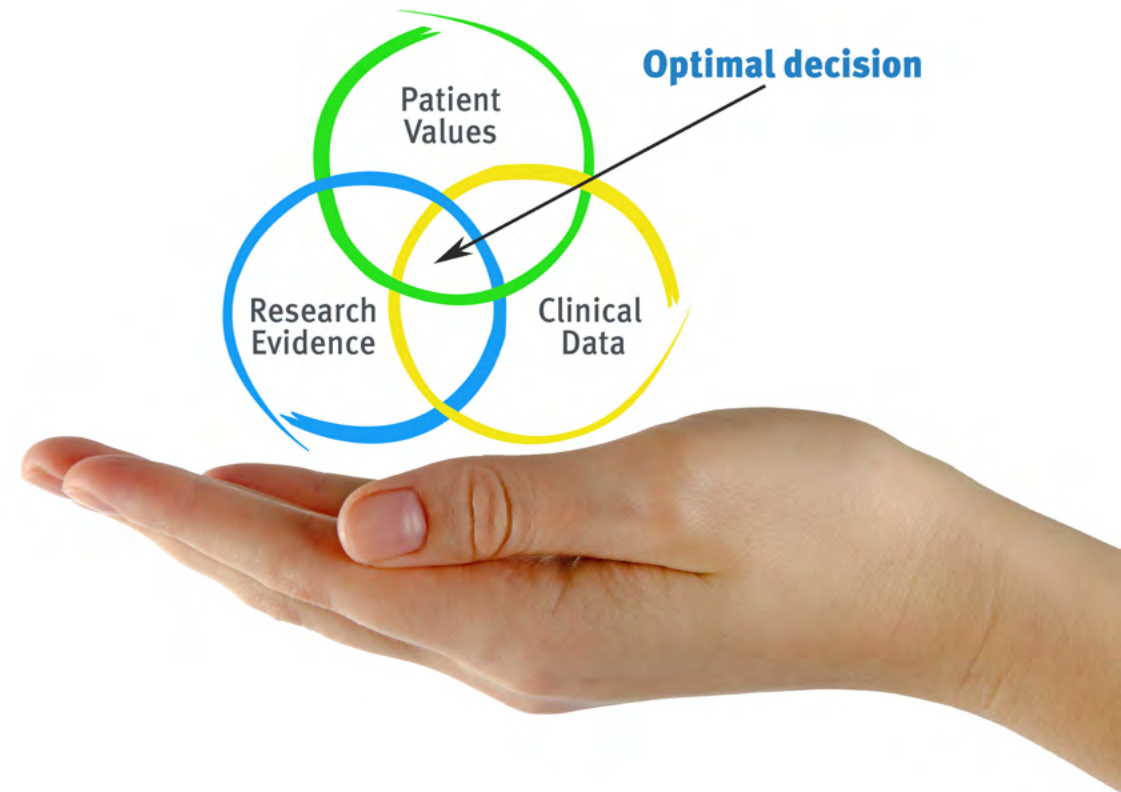
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## 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 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.

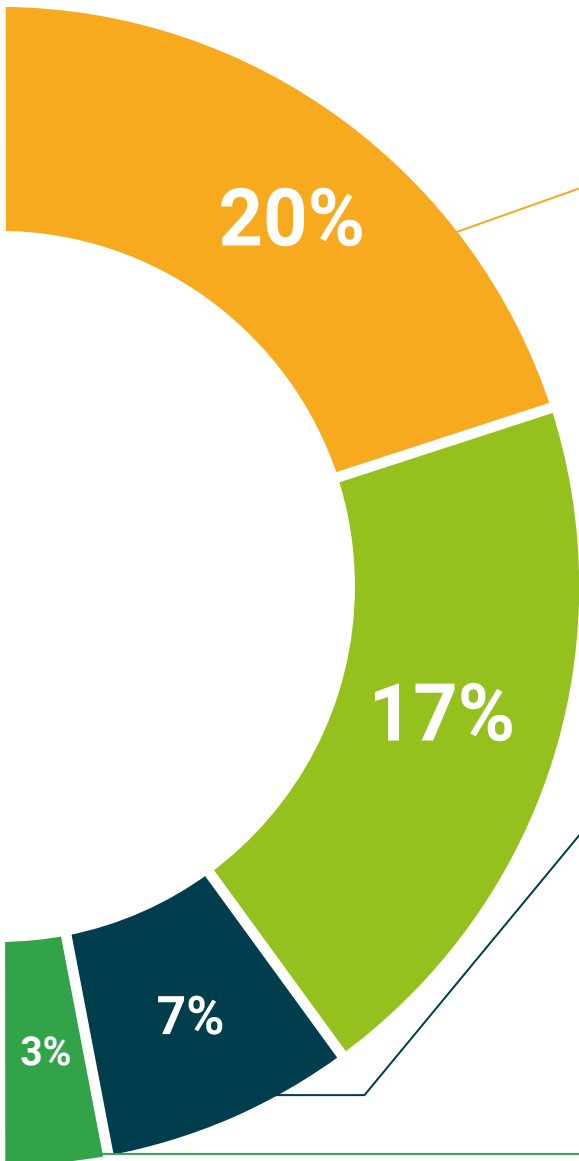
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 Leg Ultrasound in Physiotherapy 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 Leg Ultrasound in Physiotherapy** contains the most complete and up-to-date scientific 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 of Leg Ultrasound in Physiotherapy**

Official N° of Hours: **100 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.



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