

Postgraduate Diploma Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy



Postgraduate Diploma Musculoskeletal Ultrasound In Foot and Ankle Physiotherapy

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 21 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-musculoskeletal-ultrasound-foot-ankle-physiotherapy

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01

Introduction

In recent years, there have been numerous scientific advances that have made it possible to develop new ultrasound tools, equipped with high visual quality to promote the effective diagnosis of ankle and foot injuries in the field of physiotherapy. Their use offers a high degree of accuracy in the subsequent treatment to be applied to successfully overcome the pathologies, so handling these devices properly is essential to ensure optimal patient recovery. For this reason, TECH has created this program, through which the physiotherapist will improve their skills in the exploration of the structures of the plantar face or the most common ligamentous pathologies of the ankle, from home and 100% online.



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With this qualification, handle the most advanced techniques to explore the different structures of the plantar face and effectively detect a lesion”

Tendinopathies in the ankles, plantar fascia pain or nerve entrapments of the foot can be treated with the maximum efficiency from a physiotherapeutic point of view thanks to the emergence of state-of-the-art ultrasound techniques. In this regard, the benefits brought in terms of real time and objective evaluation of the injured tissue to optimize the rehabilitation program of the pathologies have led to the use of musculoskeletal ultrasound has become increasingly common in clinics. Because of this, physiotherapists who are highly skilled in its use are, nowadays, in great demand by these centers to offer first class services to their patients.

In view of this circumstance, this academic institution has designed this Postgraduate Diploma, through which the student will expand their knowledge in the use of the most updated ultrasound devices to treat foot and ankle pathologies and, therefore, will develop avant-garde competencies that will favor their professional growth. During 6 months of intensive learning, you will adopt the most efficient techniques to undertake the exploration of the different faces of the ankle or detect the existing lesions on the different faces of the plantar fascia. You will also increase your skills in the detection of ailments in the forefoot.

Thanks to the 100% online methodology characteristic of this program, the student will be able to manage their own study time as they wish in order to achieve fully effective learning. In addition, this program is taught by the best specialists in Physical Medicine and Rehabilitation and Physiotherapy, who will provide the contents with greater applicability in their daily professional work.

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

- ♦ The development of practical case studies presented by experts in Physical Rehabilitation Medicine and 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 process of self-assessment can be used 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



At the conclusion of this academic program, you will be able to identify and treat ligamentous ailments in the ankles”

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This program has a relearning system system that will allow you to learn at your own pace, adapting your study to your own academic needs”

The program's teaching staff includes professionals from the sector 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's design focuses on Problem-Based Learning, through which the professional must try to solve the different professional practice situations that arise during the academic program. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

Offer your patients the best services in the treatment of foot and ankle injuries thanks to the knowledge acquired in this Postgraduate Diploma.

Combine your professional and private life with an excellent learning by means of this Postgraduate Diploma offered by TECH.



02 Objectives

The Postgraduate Diploma in Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy program has been created with the aim of providing the necessary tools to the physiotherapist to broaden their skills in the management of musculoskeletal ultrasound for foot and ankle injuries. During the academic stage, they will adopt the most efficient diagnostic techniques in order to optimize their subsequent recovery work in the face of ailments. To reinforce your learning, the following general and specific objectives have been established.





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Manages diagnostic and therapeutic procedures foot and ankle injuries, based on the use of musculoskeletal ultrasound”



General Objectives

- 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



Develop a first level physiotherapeutic praxis thanks to the knowledge you will acquire in this program"





Specific Objectives

Module 1. Basic Ultrasound

- ◆ Learn about ultrasound and an ultrasound scanner, its history and application to physiotherapy
- ◆ Identify the ultrasound patterns of the different structure of the locomotor system
- ◆ Study the different devices available in ultrasound and learn how to use them beneficially
- ◆ Explain the use of ultrasound by the rehabilitation physician and its legal considerations
- ◆ Describe the piezoelectric effect and the physical basis of ultrasound
- ◆ Explain the different components of the equipment
- ◆ Explain the production of the ultrasound image
- ◆ Describe the terminology used in ultrasound
- ◆ Define the types of images obtained by ultrasound and the different tissue patterns

Module 2. Ultrasound of the Lower Limb: Ankle

- ◆ Learn the sonoanatomy of the ankle
- ◆ Describe the normal examination of the structures of the anterior aspect of the ankle
- ◆ Describe the normal examination of the structures of the lateral aspect of the ankle
- ◆ Describe the normal examination of the structures of the posterior aspect of the ankle
- ◆ Describe the normal examination of the structures of the medial aspect of the ankle
- ◆ Learn how to perform ultrasound-guided dynamic assessment tests for the ankle
- ◆ Identify the most common lesions of the ankle, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution
- ◆ Describe the least common pathologies that can affect the ankle

Module 3. Ultrasound of the Lower Limb: Foot

- ◆ Recognize the most common lesions of this zone, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution
- ◆ Describe the normal examination of the structures of the dorsal aspect of the foot
- ◆ Describe the normal examination of the structures of the palmar aspect of the foot
- ◆ Describe the least common pathologies that can affect the foot
- ◆ Learn how to perform ultrasound-guided dynamic assessment tests for the foot

Module 4. Ultrasound of the Lower Limb: Forefoot

- ◆ Describe the normal examination of the structures of the dorsal aspect of the forefoot
- ◆ Describe the normal examination of the structures of the palmar aspect of the forefoot
- ◆ Identify the most common lesions of the forefoot, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution
- ◆ Describe the least common pathologies that can affect the forefoot
- ◆ Learn how to perform ultrasound-guided dynamic assessment tests for the forefoot

03

Course Management

Thanks to TECH's untiring commitment to maintain intact the high educational level so characteristic of its programs, this Postgraduate Diploma is directed and taught by professionals actively working in the field of Physical Medicine and Rehabilitation and Physiotherapy. These specialists are in charge of creating all the didactic materials that the student will study throughout their academic experience, so the knowledge they will provide will be in tune with the latest advances in the field of Physical Medicine and Rehabilitation and Physiotherapy.



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The teaching team responsible for teaching this program has experience in the use of musculoskeletal ultrasound in state-of-the-art hospital and physiotherapeutic environments”

Management



Dr. Castillo Martín Juan Ignacio

- ♦ Head of Physical Medicine and Rehabilitation Service. Hospital 12 de Octubre. Madrid
- ♦ 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. Recoletas Cuenca Hospital
- ♦ Coordinator of continuing education of the Spanish Society of Cardiology in Exercise Testing with Oxygen Consumption
- ♦ Associate Professor, Complutense University of Madrid. Faculty of Medicine
- ♦ Teaching coordinator in continuing education courses at the Madrid Regional Ministry of Health: "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 Disability Assessment Autonomous University Madrid
- ♦ Master Child Disability. Complutense University of Madrid
- ♦ Doctorate Course: Neurosciences University of Salamanca
- ♦ Member of the Spanish Society of Cardiology

Professors

Dr. Santiago Nuño, Fernando

- ◆ Physiotherapist and podiatrist at the Armstrong International Clinic
- ◆ Orthopedist at Ortoaccesible
- ◆ Professor of Musculoskeletal Ultrasound and Ultrasound-guided Infiltrations at the Complutense University of Madrid and the European University of Madrid
- ◆ Doctor in Podiatry from the University of La Coruña
- ◆ Physiotherapist specializing in Traumatology, Neurology and Sports Injury Rehabilitation in Armstrong International Clinic
- ◆ Master's Degree in Advanced Clinical Podiatry from the CEU-Cardenal Herrera University
- ◆ Master's Degree in Clinical Management, Medical Direction and Assistance at the CEU-Cardenal Herrera Oria University
- ◆ Master's Degree in Musculoskeletal Ultrasound by the CEU-Cardenal Herrera Oria University
- ◆ Master of Specialist in Manual Therapy by the Complutense University of Madrid
- ◆ Master in On-line Research in Podiatry by the Universidad Rey Juan Carlos Madrid
- ◆ Master of Specialist and Supervisor of Orthopedic Products by the Complutense University of Madrid

Dr. Casado Hernández, Israel

- ◆ Director of Vitalpie
- ◆ Podiatrist in grassroots soccer clubs such as Getafe CF or AD Alcorcón
- ◆ Associate lecturer in university studies
- ◆ Author of more than 20 scientific articles and 7 book chapters
- ◆ Doctorate in Health Sciences from the Rey Juan Carlos University
- ◆ Degree in Podiatric Medicine from the Complutense University of Madrid
- ◆ Master in Podiatric Research, Universidad Rey Juan Carlos, Madrid

Mr. García Expósito, Sebastián

- ◆ Radiodiagnostic technician at the Sanitas Women's Center
- ◆ Radiodiagnostic technician at Hospital de la Zarzuela
- ◆ Degree in Bioimaging Production from the National University of Lomas de Zamora

Ms. Moreno, Cristina Elvira

- ◆ Physiotherapist at Nupofis clinic
- ◆ Physiotherapist at Clínica Fisios Islas 21
- ◆ Physiotherapist at Clínica Más Fisio
- ◆ Physiotherapist at Parkinson Association Madrid
- ◆ Graduate in Physiotherapy from the Complutense University of Madrid
- ◆ Master in Musculoskeletal Ultrasound in Physiotherapy by CEU San Pablo University

Mr. Nieri, Martín

- ◆ Diagnostic Imaging Technician at the University Hospital Son Espases
- ◆ CEO of Ultrasound & Teleradiology Assistance Service SL Director of the Ultrasound Quality Control Department at Servicio en Asistencia Ultrasonido & Teleradiología SL
- ◆ Freelance Diagnostic Imaging Technician
- ◆ Lecturer in Ultrasound training courses
- ◆ Participation in several Ultrasound projects
- ◆ Diathermy Course by Helios Electromedicina

Mr. Santiago Nuño, José Ángel

- ♦ Dietician and nutritionist in different physiological situations at Medicadiet
- ♦ Diploma in Physiotherapy from San Pablo CEU University
- ♦ Diploma in Human Nutrition and Dietetics from San Pablo CEU University
- ♦ Postgraduate Specialist in Food Exchange System for the preparation of diets and menu planning from the University of Navarra
- ♦ Physiotherapist specializing in Traumatology, Neurology and Sports Injury Rehabilitation in Armstrong International Clinic
- ♦ Sports International Armstrong Clinic
- ♦ Specialist Master's Degree in Sports Physiotherapy from the Complutense University of Madrid
- ♦ Expert in Traditional Chinese Medicine and Acupuncture for Physiotherapists at the University of Castilla La Mancha

Dr. Teijeiro, Javier

- ♦ Physiotherapist and technical director of the Physiotherapy Service of the Centro Asistencial San Pablo y San Lázaro de Mondoñedo
- ♦ Regional Delegate of the Spanish Society of Ultrasound and Physical Therapy
- ♦ Physiotherapist of the Dinán Viveiro Clinic
- ♦ Doctorate in Health, Disability, Dependence and Welfare
- ♦ Master in Natural Medicine and its applications in Primary Care by the University of Santiago de Compostela
- ♦ Master's Degree in Pharmacology for Physiotherapists from the University of Valencia
- ♦ Official Master's Degree in Intervention in Disability and Dependency from the University of A Coruña
- ♦ Master in Diagnostic Imaging by the University of Valencia
- ♦ University Expert in Musculoskeletal Ultrasound by Francisco de Vitoria University





Dr. Pérez Calonge, Juan José

- ◆ Podiatrist at Clínica Podológica Gayarre
- ◆ Author of the article Technique of direct examination of onychomycosis by microscopy with potassium hydroxide
- ◆ Doctor in Health Sciences from the Public University of Navarra
- ◆ Official Master's Degree in Health Expertise from the Complutense University of Madrid
- ◆ Official Master's Degree in Advanced Podiatry, CEU
- ◆ Expert in Surgery by the Complutense University of Madrid
- ◆ Course of Foot Infiltration by the Complutense University of Madrid

Ms. Sánchez Marcos, Julia

- ◆ Physiotherapist and osteopath in Isabel Amoedo Physiotherapy Clinic
- ◆ Physiotherapist at the Hospital Vithas Nuestra Señora de Fátima
- ◆ Physiotherapist at ASPODES-FEAPS
- ◆ Physiotherapist at the Fisiosalud Clinic
- ◆ Master in Electrotherapy at CEU Cardenal Herrera University
- ◆ Expert in Ultrasound Sonoanatomy of the Locomotor Apparatus by the European University
- ◆ Course of Neurodynamics by Zerapi Fisioterapia Avanzada
- ◆ Course of Percutaneous Therapeutic Electrolysis "EPTE"
- ◆ Course of Neurodynamic Myofascial and Articular Fibrolysis "Hooks" by Instema

04

Structure and Content

The syllabus of this program is made up of 4 modules with which the student will significantly increase their knowledge in the field of the use of musculoskeletal ultrasound for the diagnosis and treatment of foot and ankle pathologies. Likewise, the didactic materials that the student will access throughout this program are available in different formats such as the complementary readings or the explanatory video. With this, added to its 100% online methodology, TECH's intention is to favor a learning process that is completely adapted to the personal and academic circumstances of each student.





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Enjoy comfortable and effective learning thanks to the didactic resources present in formats such as the interactive summary or the video offered by this program”

Module 1. Basic Ultrasound

- 1.1. Basic Ultrasound I
 - 1.1.1. General Aspects of Musculoskeletal
 - 1.1.2. Physical Bases of Ultrasound. Piezoelectric Effect
- 1.2. Basic Ultrasound II
 - 1.2.1. Knowledge of the Equipment
 - 1.2.2. Equipment Management: Parameters
 - 1.2.3. Technological Improvements
- 1.3. Basic Ultrasound III
 - 1.3.1. Artifacts in Ultrasound
 - 1.3.2. Foreign Bodies
 - 1.3.3. Types of Images and Different Tissue Patterns in Ultrasound
 - 1.3.4. Dynamic Maneuvers
 - 1.3.5. Advantages and Disadvantages of Ultrasound

Module 2. Ultrasound of the Lower Limb: Ankle

- 2.1. Normal Sonoanatomy of the Ankle
 - 2.1.1. Examination of the Anterior Aspect Structures
 - 2.1.2. Examination of the Lateral Aspect Structures
 - 2.1.3. Examination of the Medial Aspect Structures
 - 2.1.4. Examination of the Posterior Aspect Structures
- 2.2. Pathology of the Ankle
 - 2.2.1. Most Common Tendon Pathology
 - 2.2.2. Most Common Ligament Pathology
 - 2.2.3. Other Ankle Joint Pathologies
- 2.3. Dynamic Tests on the Ankle





Module 3. Ultrasound of the Lower Limb: Foot

- 3.1. Normal Sonoanatomy of the Foot
 - 3.1.1. Examination of the Dorsal Aspect Structures
 - 3.1.2. Examination of the Plantar Aspect Structures
 - 3.1.2.1. Plantar Fascia
 - 3.1.2.2. 1st Layer
 - 3.1.2.3. 2nd Layer
 - 3.1.2.4. 3rd Layer
 - 3.1.2.5. 4th Layer
- 3.2. Pathology of the Foot
 - 3.2.1. Most Common Pathology of the Foot
- 3.3. Dynamic Tests on the Foot

Module 4. Ultrasound of the Lower Limb: Forefoot

- 4.1 Normal Sonoanatomy of the Forefoot
 - 4.1.1. Examination of the Dorsal Aspect Structures
 - 4.1.2. Examination of the Plantar Aspect Structures
- 4.2. Forefoot Pathology
 - 4.2.1. Most Common Pathology of the Forefoot
- 4.3. Dynamic Tests on the Foot



Study this Postgraduate Diploma to access the most updated teaching materials on the market in Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy”

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 Diploma in Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy guarantees, in addition to the most rigorous and updated knowledge, access to a University Postgraduate Diploma issued by TECH Global University.



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

This private qualification will allow you to obtain a **Postgraduate Diploma in Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

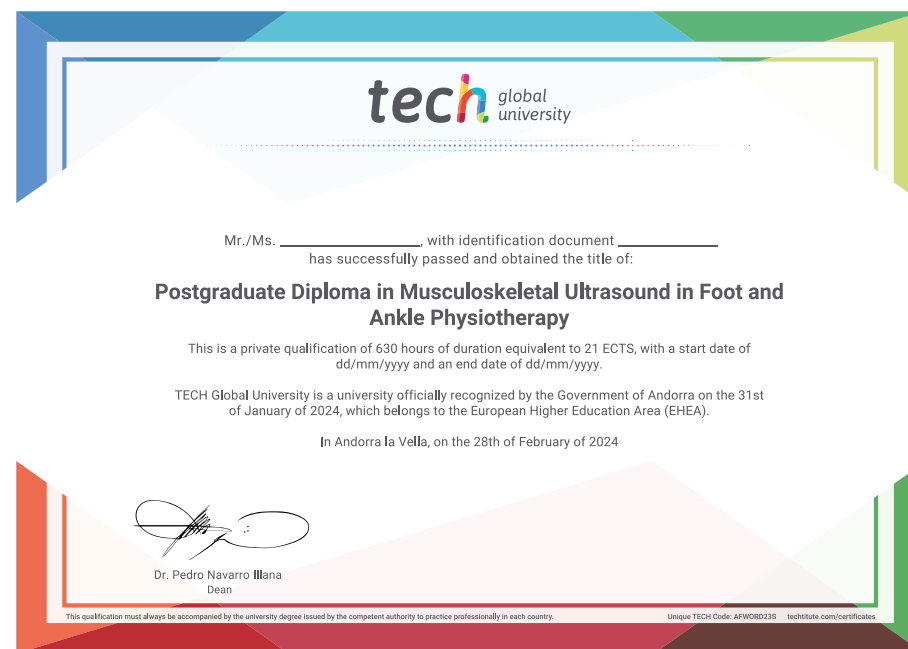
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy**

Modality: **online**

Duration: **6 months**

Accreditation: **21 ECTS**





Postgraduate Diploma
Musculoskeletal
Ultrasound in Foot and
Ankle Physical Therapy

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 21 ECTS
- » Schedule: at your own pace
- » Exams: online

Postgraduate Diploma Musculoskeletal Ultrasound in Foot and Ankle Physiotherapy