

# Postgraduate Certificate

## Knee Ultrasound in Physiotherapy





## Postgraduate Certificate Knee 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/us/physiotherapy/postgraduate-certificate/knee-ultrasound-physiotherapy](http://www.techtitute.com/us/physiotherapy/postgraduate-certificate/knee-ultrasound-physiotherapy)

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# 01

# Introduction

Patellar tendinopathies, ligament injuries, and meniscal problems are diagnosed in physiotherapy clinics using ultrasound due to the advantages it offers in accurately detecting a pathology and providing appropriate treatment. Given its importance in optimizing patient recovery times, physiotherapists must possess high-level skills in its use to effectively treat knee injuries. This fact has motivated TECH to develop this program, enabling students to expand their knowledge in the examination of the most common pathologies affecting all areas of this joint. This aims to make them top-notch professionals through online learning without the need to leave their homes.





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*With this Postgraduate certificate, you will enhance your skills in monitoring injuries to the inner and outer ligaments of the knee to ensure the well-being of your patients”*

In recent years, in the field of physiotherapy, the use of ultrasound to detect potential knee pathologies in patients has become increasingly common. This is because it provides a diagnostic precision that surpasses widely used methods in medicine such as X-rays or magnetic resonance imaging. Additionally, the utility of real-time assessment and monitoring during the entire injury process has made ultrasound devices cutting-edge technology for rehabilitation centers and clinics. As a result, these health institutions require top experts in the field to ensure the proper recovery of their patients.

In response to this situation, TECH has designed this Postgraduate Certificate, through which physiotherapists will acquire the most advanced and up-to-date knowledge in the detection of knee injuries to enhance their daily practice and provide quality services to their patients. Over 6 weeks of intensive training, students will assimilate the most current techniques for diagnosing the extent of patellar tendinopathy or injuries to the inner and outer lateral ligaments. They will also expand their examination capabilities for meniscal pathologies to establish a detailed injury monitoring.

Thanks to the 100% online methodology of this program, students will manage their study time for efficient learning. Additionally, they will have access to educational materials in various formats such as explanatory videos, interactive summaries, and evaluative tests, designed to facilitate enjoyable learning that aligns with the needs of the student.

This **Postgraduate Certificate in Knee 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 highly practical content with which it is designed encompasses scientific and practical information on those disciplines 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, thanks to this qualification, the most efficient diagnostic methods for detecting the extent of patellar tendinopathies”*

“

*With just a device with internet access, you can acquire cutting-edge knowledge in Knee Ultrasound in Physiotherapy”*

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 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.

*Upon completing this Postgraduate Certificate, you will significantly enhance your access to the best professional opportunities in the field of Physiotherapy.*

*Enroll in this qualification to access the most up-to-date didactic materials on Knee Ultrasound in Physiotherapy, created by top experts in the field.*



# 02 Objectives

TECH has designed this Postgraduate Certificate with the aim of promoting professional development and expanding the physiotherapist's skills in the detection and treatment of knee injuries through the use of cutting-edge ultrasound devices. You will delve into the most innovative and effective diagnostic techniques for each aspect of the joint, ensuring comprehensive learning through the pursuit of these general and specific objectives.





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*Balance your learning with your professional work and personal life to enrich your physiotherapeutic practice in a convenient and tailored manner”*



## 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

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*TECH provides you with the necessary tools to boost your professional growth in an industry that requires constant updating to succeed”*





## Specific Objectives

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

# 04

# Course Management

Thanks to TECH's unwavering commitment to offering top-notch academic programs, this qualification is directed and taught by professionals actively working in the fields of Physical Medicine and Rehabilitation or Physiotherapy, proficient in the use of ultrasound. As these experts themselves are responsible for creating the educational materials that the student will have access to throughout this qualification, all the knowledge you will acquire will be fully up-to-date.



A close-up, profile view of a person's face and hand, showing the ear, cheek, and fingers. The skin is light-toned and has a natural texture. The background is a white-to-blue gradient.

“

*The teaching staff for this academic program consists of specialists in Physical Medicine and Rehabilitation and physiotherapists, who will provide you with the most valuable knowledge for your professional field”*

## Management



### Dr. Castillo Martín, Juan Ignacio

- ♦ Head of Physical Medicine and Rehabilitation Department at HU 12 de Octubre
- ♦ 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"
- ♦ Bachelor 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, José Ángel

- ◆ Physiotherapist, osteopath, dietitian, nutritionist, and co-director of Nupofis Clinic
- ◆ Dietitian and nutritionist in various physiological situations at Medicadiet
- ◆ Diploma in Physiotherapy from San Pablo CEU University
- ◆ Postgraduate Certificate in Human Nutrition and Dietetics from San Pablo CEU University
- ◆ Postgraduate Specialist in Food Exchange System for Diet Preparation and Menu Planning from the University of Navarra
- ◆ Specialized physiotherapist in Traumatology, Neurology, and Sports Injury Rehabilitation at Armstrong International Clinic
- ◆ 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

### Ms. Sánchez Marcos, Julia

- ◆ Physiotherapist, osteopath, and Pilates instructor at Nupofis Clinic
- ◆ 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 Cardenal Herrera University
- ◆ 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 Electromedicine

### 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 Rey Juan Carlos University
- ◆ Degree in Podiatric Medicine from Complutense University of Madrid
- ◆ Master's Degree in Podiatry Research from Rey Juan Carlos University

### 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 University of Santiago de Compostela
- ◆ Master's Degree in Pharmacology for Physiotherapists from the University of Valencia
- ◆ Official Master's Degree in Disability and Dependence Intervention from the University of A Coruña
- ◆ Master's Degree in Diagnostic Imaging from the University of Valencia
- ◆ Postgraduate Diploma in Musculoskeletal Ultrasound from Francisco de Vitoria University

### Ms. Moreno, Cristina Elvira

- ◆ Physiotherapist Expert in Musculoskeletal Ultrasound
- ◆ Physiotherapist at Nupofis Clinic
- ◆ Physiotherapist at Islas 21 Physios Clinic
- ◆ Physiotherapist at Más Fisio Clinic
- ◆ Physiotherapist at Parkinson Association Madrid
- ◆ Graduated in Physiotherapy from Complutense University of Madrid
- ◆ Master's Degree in Musculoskeletal Ultrasound in Physiotherapy from CEU San Pablo University

### Dr. García Expósito, Sebastián

- ◆ Expert in radiodiagnostic applications and techniques
- ◆ Radiodiagnosis technician at Sanitas Women's Center
- ◆ Radiodiagnosis technician at Hospital de la Zarzuela
- ◆ Graduate in Bioimaging Production from the National University of Lomas de Zamora

### Dr. Pérez Calonge, Juan José

- ◆ Podiatrist expert in Integral Foot Surgery
- ◆ Podiatrist at Gayarre Podiatric Clinic
- ◆ Author of the article Direct Examination Technique of Onychomycosis using Potassium Hydroxide Microscopy
- ◆ Ph.D. in Health Sciences from the Public University of Navarra
- ◆ Official Master's Degree in Health Assessment from the Complutense University of Madrid
- ◆ Official Master's Degree in Advanced Podiatry from CEU
- ◆ Expert in Surgery from the Complutense University of Madrid
- ◆ Foot Infiltration Course from the Complutense University of Madrid

### Dr. Nieri, Martín Alejandro

- ◆ Diagnostic Imaging Technician expert in Musculoskeletal Ultrasonography
- ◆ 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

### Ms. García Urbina, Isabel

- ◆ Physiotherapist, Osteopath, and Manual Therapy Expert
- ◆ Physiotherapist at Cuba Clinic
- ◆ Tutor in Physiotherapy. Francisco de Vitoria University
- ◆ Physiotherapist. Titanium Clinic
- ◆ Physiotherapist. Nupofis Clinic
- ◆ Physiotherapy, Osteopathic Medicine/Osteopathy Francisco de Vitoria University
- ◆ Master's Degree in Osteopathic Medicine/Osteopathy Madrid Osteopathy School
- ◆ Expert in Manual Therapies, Manual Therapies, Massage, Diagnosis, and Treatment Francisco de Vitoria University
- ◆ Course in Neuromuscular Taping (Kinesiotape) by Axis Formación, Helios Uniphy, and Francisco de Vitoria University
- ◆ Pediatric Physiotherapy Specialist by Medical R2
- ◆ Specialist in Pilates Mat and Accessories Applied to Physiotherapy by Sane Pilates
- ◆ Diathermy by Helios Electromedicine
- ◆ Geriatric Patient Approach Specialist

**Dr. Santiago Nuño, Fernando**

- ◆ Physiotherapist, osteopath, podiatrist, and co-director at Nupofis Clinic
- ◆ Physiotherapist and podiatrist at Armstrong International Clinic
- ◆ Orthopedist at Ortoaccesible
- ◆ Teacher of Musculoskeletal Ultrasound and Guided Injections at Complutense University of Madrid and European University of Madrid
- ◆ Doctor in Podiatry from the University of La Coruña
- ◆ Specialized physiotherapist in Traumatology, Neurology, and Sports Injury Rehabilitation at Armstrong International Clinic
- ◆ Own Master's Degree in Advanced Clinical Podiatry from CEU - Cardenal Herrera University
- ◆ Own Master's Degree in Clinical Management, Medical and Healthcare Management from the CEU - Cardenal Herrera Oria University
- ◆ Own Master's Degree in Musculoskeletal Ultrasound from CEU - Cardenal Herrera University
- ◆ Master's Degree in Manual Therapy Specialist from Complutense University Madrid
- ◆ Master in Online Pediatrics Research from Rey Juan Carlos University Madrid
- ◆ Master's Degree in Orthopedic Product Specialist and Supervisor from Complutense University Madrid

# 05

## Structure and Content

The syllabus of this Postgraduate Certificate has been designed with the intention of providing students with the necessary content to enhance their knowledge in the field of physiotherapeutic use of ultrasound to detect and treat knee pathologies. The teaching resources that students will access throughout the duration of this program are available in a wide range of textual and multimedia formats. This, combined with TECH's 100% online methodology, aims to provide an engaging and individualized learning experience.





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*Through a syllabus designed by top experts in knee ultrasound, you will acquire the most cutting-edge knowledge in this field”*

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

- 1.1. Introduction
- 1.2. Normal Sonoanatomy of the Knee
- 1.3. Examination of the Anterior Aspect Structures
- 1.4. Examination of the Medial Aspect Structures
- 1.5. Examination of the Lateral Aspect Structures
- 1.6. Examination of the Posterior Aspect Structures
- 1.7. Sciatic Nerve Examination
- 1.8. Knee Ligament Pathology
- 1.9. Most Common Tendon Pathology
- 1.10. Other Knee Joint Pathology
- 1.11. Dynamic Tests on the Knee
- 1.12. Clinical Cases
- 1.13. In Focus Video





“ Access top-quality teaching resources available in various textual and multimedia formats to enhance and optimize 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.





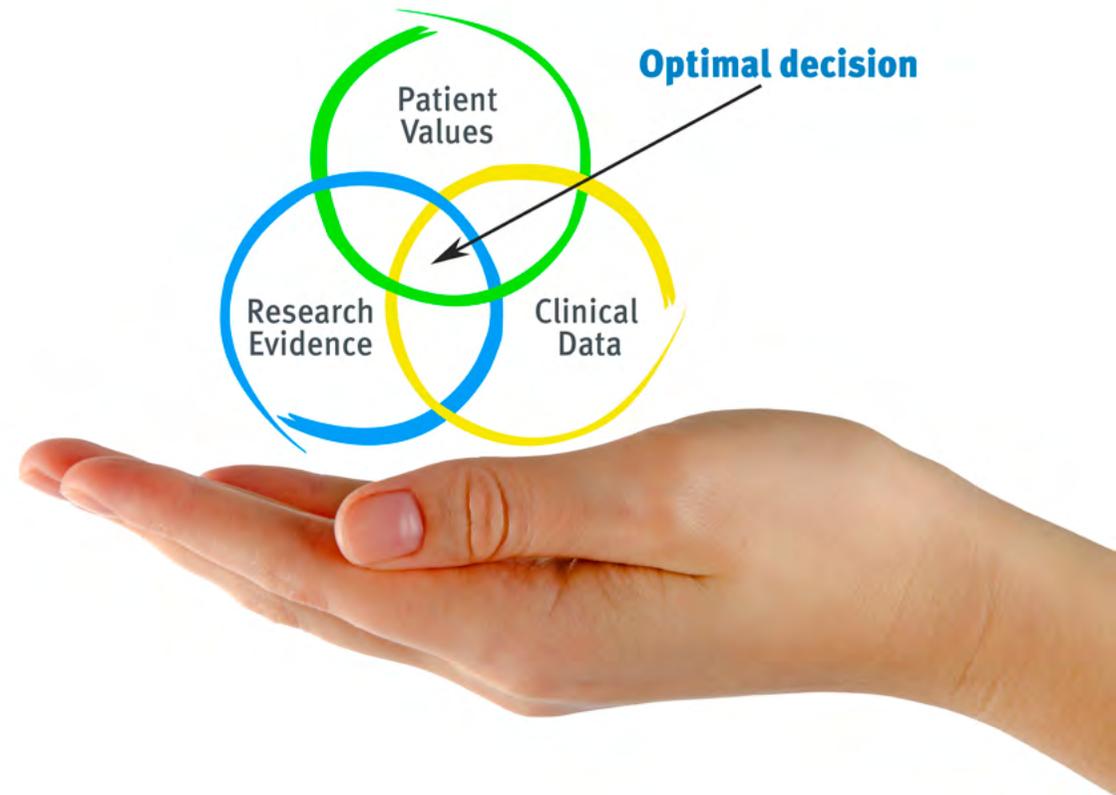
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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.

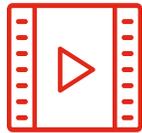
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

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

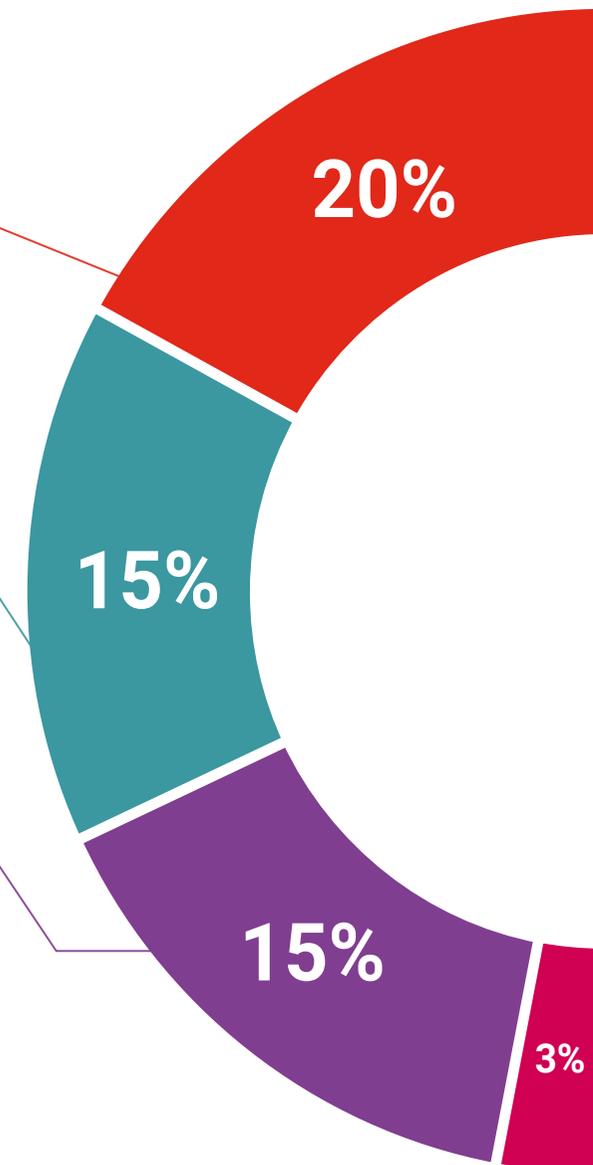
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

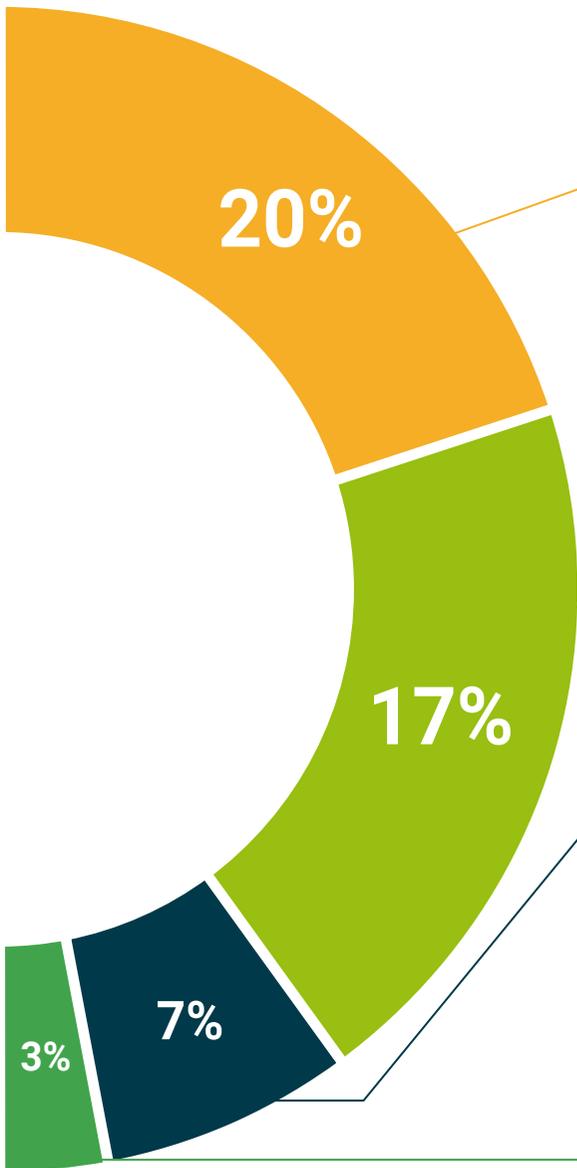
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 Knee Ultrasound in Physiotherapy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Knee Ultrasound in Physiotherapy** 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** diploma issued by **TECH Technological University** via tracked delivery.

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

Title: **Postgraduate Certificate of Knee Ultrasound in Physiotherapy**

Official N° of Hours: **150 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.

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



## Postgraduate Certificate Knee Ultrasound in Physiotherapy

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

# Postgraduate Certificate

## Knee Ultrasound in Physiotherapy

