

# Postgraduate Certificate Hand Ultrasound in Physiotherapy

Endorsed by the NBA





## Postgraduate Certificate Hand Ultrasound in Physiotherapy

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 5 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: <https://www.techtute.com/us/physiotherapy/postgraduate-certificate/hand-ultrasound-physiotherapy>

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# 01

# Introduction

The hand, used daily for thousands of daily and work activities, frequently suffers from a wide range of ailments that must be diagnosed quickly in order to adapt the treatment and promote a rapid recovery of the affected person. This fact has led to the constant evolution of ultrasound devices to provide a high quality image that facilitates the detection of pathologies, forcing physical therapists to know these advances to perform their work successfully. Because of this, TECH has created this program, which will provide students with the latest methods of exploration of possible injuries of the anterior aspect of the hand or knuckles to improve their physiotherapeutic performance from home and 100% online.





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*This Postgraduate Certificate in Hand Ultrasound in Physical Therapy will enable you to adopt in your work methodology the most updated exploration methods for pathologies of the anterior aspect"*

A large part of sick leave is caused by hand injuries, which make it impossible to perform simple actions such as opening and closing the fist and require the services of physiotherapists to recover mobility and lead a normal life. For this purpose, the use of ultrasound scanners is an excellent ally, since it allows the quick and rigorous detection of the extent of a pathology and, subsequently, the application of the most appropriate therapy to promote healing. Given the significant benefits offered by this cutting-edge technology, professionals with high skills in its use are in great demand in the Physiotherapy sector to optimize the recovery process of patients.

That is why TECH has developed this program, through which the physiotherapist will assimilate the most avant-garde techniques for the exploration of the different areas of the hand, in order to detect with solvency the possible pathologies and to carry out a detailed follow-up of them. During 150 intensive hours of learning, you will handle the most effective diagnostic techniques for both dorsal and palmar areas or increase your knowledge in the development of ultrasound-guided treatments to address injuries to the fingers. In the same way, you will adopt the most effective mechanisms to treat various pathologies of the knuckles.

All this, following a 100% online methodology, which will allow the student to achieve a first level learning through the management of their own study schedules. In addition, you will have at your disposal extensive didactic resources in modern formats such as interactive summaries or explanatory videos, so that you can optimize your teaching in a comfortable and attractive way.

This **Postgraduate Certificate in Hand 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 case studies presented by experts in Physical Rehabilitation Medicine 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



*Increase your knowledge in Hand Ultrasound in Physiotherapy to become a prestigious professional in this field"*



*Combine your learning with your professional and work obligations thanks to the convenient teaching system offered by TECH"*

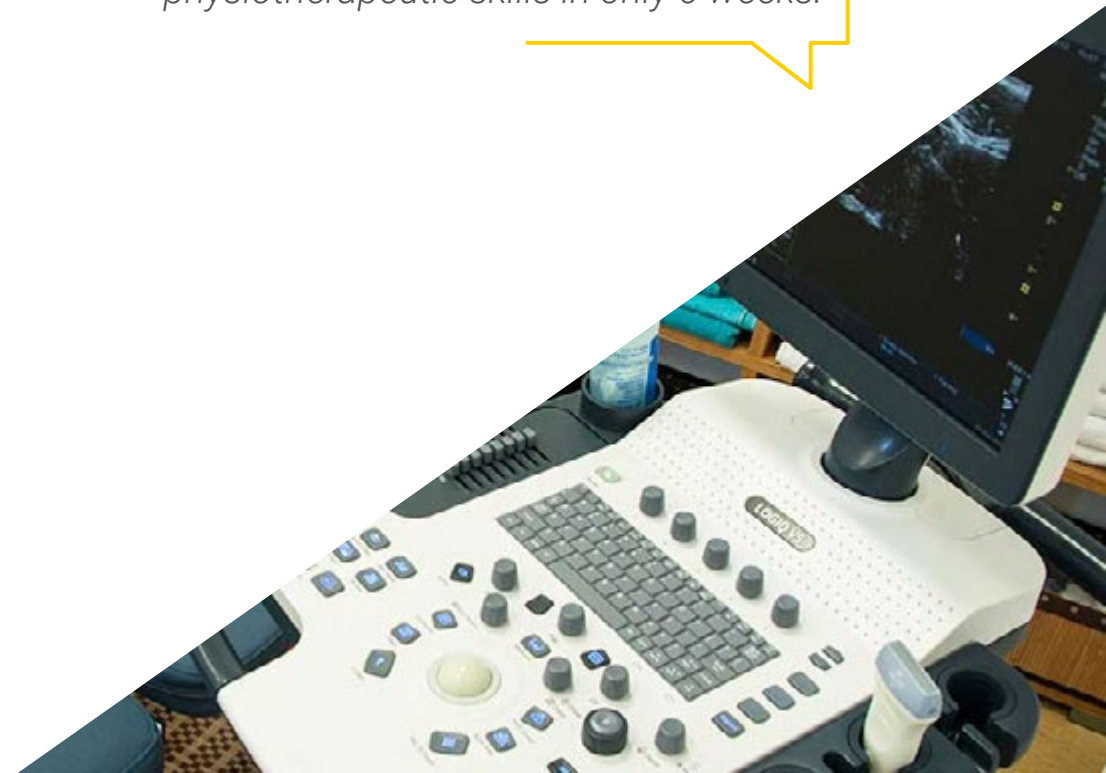
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

*Acquire, through this program, the best techniques to perform ultrasound-guided treatment of finger injuries.*

*Access a qualification that will provide you with the necessary didactic contents to perfect your physiotherapeutic skills in only 6 weeks.*



# 02 Objectives

The design of this Postgraduate Certificate has been made with the objective of favoring the acquisition of new knowledge in the field of ultrasound scanning of hand pathologies by the physiotherapy professional. In this way, they will increase their diagnostic skills and will be able to establish a subsequent cutting-edge treatment for these ailments. Your learning will be monitored by the following general and specific objectives outlined by TECH.





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*This Postgraduate Certificate will allow you to expand your knowledge in Hand Ultrasound in Physical Therapy, using the latest educational technology”*



## 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



*Develop a series of competencies in the use of ultrasound that will distinguish you from other professionals in the field of physiotherapy"*





## Specific Objectives

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

03

# Course Management

In order to maintain intact the high educational level that characterizes TECH programs, this Postgraduate Certificate is directed and taught by specialists in Physical Medicine and Rehabilitation and experts in Physiotherapy who actively practice their profession. In addition, the didactic resources that the student will study during the duration of this program are specifically created by these professionals, which is why the updating of the contents offered is preserved.



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*This teaching staff is made up of specialists in Physical Medicine and Rehabilitation and experts in Physiotherapy, who will provide you with the didactic contents with the greatest applicability in your professional future"*

## Management



### Dr. Castillo Martín, Juan Ignacio

- ♦ Head of Physical Medicine and Rehabilitation Service. 12 de Octubre Hospital. 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 Orthopedic Clinic at Ortoaccesible
- ♦ Professor of Musculoskeletal Ultrasound and Ultrasound-guided Infiltrations at the Universidad
- ♦ Complutense de Madrid and at the Universidad Europea de Madrid

### Dr. Rivillas Gómez, Alberto

- ♦ Medical Specialist in Physical Medicine and Rehabilitation
- ♦ Rehabilitation Physician at European Musculoskeletal Institute
- ♦ Physician at the Knee Unit of the European Musculoskeletal Institute

### Dr. Juano Bielsa, Álvaro

- ♦ Medical Specialist in Physical Medicine and Rehabilitation
- ♦ Specialised Physician of Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre
- ♦ Specialist in Physical Medicine and Rehabilitation at 12 de Octubre Hospital

### Dr. Uzquiano Guadalupe, Juan Carlos

- ♦ Medical Specialist in Physical Medicine and Rehabilitation in the Guttmann Institute
- ♦ Associate Professor in the Master in Neurorehabilitation at the Institut Guttmann
- ♦ Specialised Physician of Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre

### Dr. Carmona Bonet, María A.

- ♦ Specialist in Physical Medicine and Rehabilitation
- ♦ Teacher in university studies of Medicine
- ♦ Collaborating physician in practical teaching of medical studies

### Dr. López Sáez, Mireya

- ♦ PhD specialized in Physical Medicine and Rehabilitation
- ♦ Specialised Physician of Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre
- ♦ Collaborating doctor in practical teaching for medical studies

### Dr. García Gómez, Nuria

- ♦ Medical Specialist in Physical Medicine and Rehabilitation
- ♦ Specialised Faculty Physical Medicine and Rehabilitation at the Hospital 12 de Octubre
- ♦ Collaborator of the Department of Physical Medicine and Rehabilitation and Hydrology Physician at Complutense University of Madrid

### Dr. Sevilla Torrijos, Gustavo

- ♦ Neurologist at FEA Neurology Department of the 12 de Octubre University HU
- ♦ FEA of the Rehabilitation Service at the of Torrejón University Hospital
- ♦ FEA of Rehabilitation of the Hospital de Guadarrama

### Dr. Casado Hernández, Israel

- ♦ Director of Vitalpie
- ♦ Podiatrist in grassroots soccer clubs such as Getafe CF or AD Alcorcón
- ♦ Associate Teacher in university studies

### 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 in Clínica Mas Fisio

**Mr. Nieri, Martín Alejandro**

- ♦ Diagnostic Imaging Technician at the University Hospital Son Espases
- ♦ CEO of in Ultrasound Assistance & Teleradiology Service SL
- ♦ Director of the Ultrasound Quality Control Department at Servicio en Asistencia Ultrasonido & Teleradiología SL

**Dr. Pérez Calonge, Juan José**

- ♦ Podiatrist at Clínica Podológica Gayarre
- ♦ Autor of the article Technique of direct examination of onychomycosis by microscopy with potassium hydroxide
- ♦ Doctorate in Health Sciences from the Public University of Navarra

**Ms. Sánchez Marcos, Julia**

- ♦ Physiotherapist and osteopath in Isabel Amoedo Physiotherapy Clinic
- ♦ Physiotherapist at the Vithas Hospital Nuestra Señora de Fátima
- ♦ Physiotherapist at-ASPODES-FEAPS

**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 Physiotherapy

**Mr. Santiago Nuño, José Ángel**

- ♦ Dietician and nutritionist in different physiological situations in Medicadiet
- ♦ Diploma in Physiotherapy from San Pablo CEU University
- ♦ Postgraduate Certificate in Human Nutrition and Dietetics from San Pablo CEU University



*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*





# 04

## Structure and Content

The curriculum of this academic program is designed to provide students with the necessary knowledge to increase their diagnostic skills for hand injuries by means of ultrasound. The didactic contents that will be available throughout this student experience are accessible through a wide range of textual and multimedia formats. With this, and through a 100% online methodology, TECH ensures a pleasant and individualized educational offer.





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*The 100% online methodology of this Postgraduate Certificate will allow you to optimize your upgrade from your home"*

## Module 1. Ultrasound of the Upper Limb: Hand

- 1.1. Normal Sonoanatomy of the Hand
  - 1.1.1. Dorsal Aspect Examination
  - 1.1.2. Palmar Aspect Examination
- 1.2. Pathology of the Hand
  - 1.2.1. Most Common Pathologies of the Hand
- 1.3. Dynamic Tests on the Hands





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*Take this program now to enjoy the most updated and flexible teaching resources on the market in Hand Ultrasound in 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.





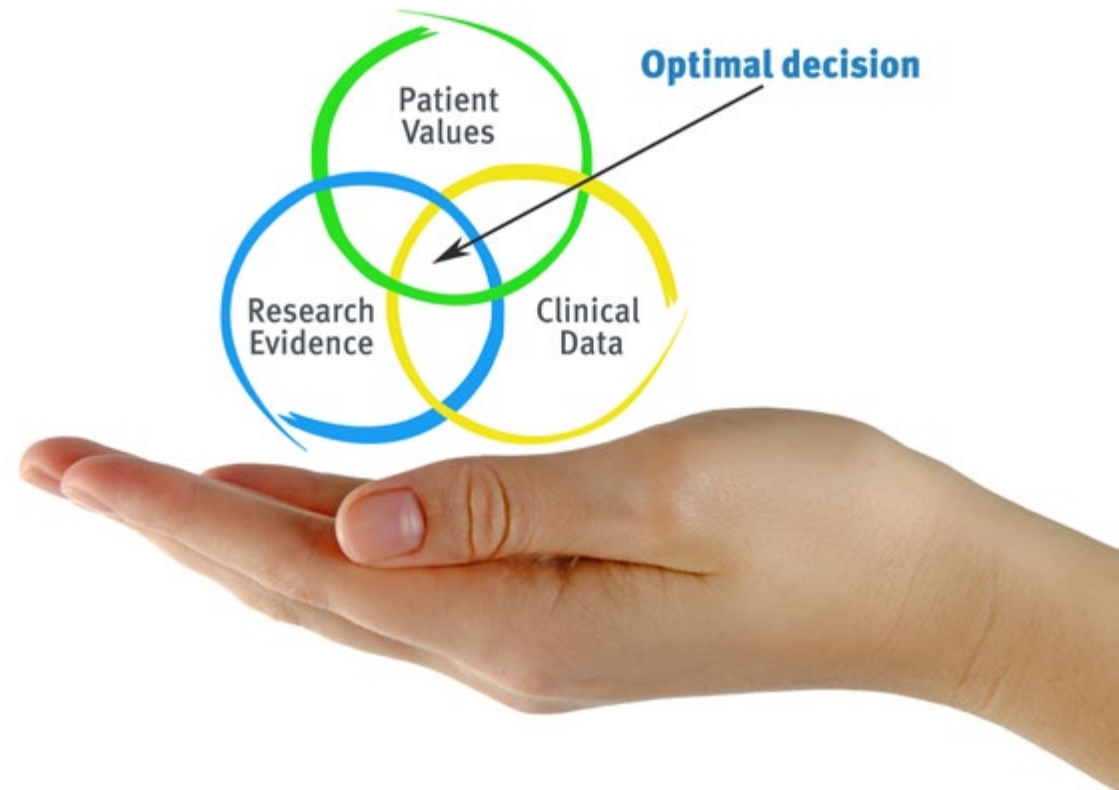
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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. Gervas, 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

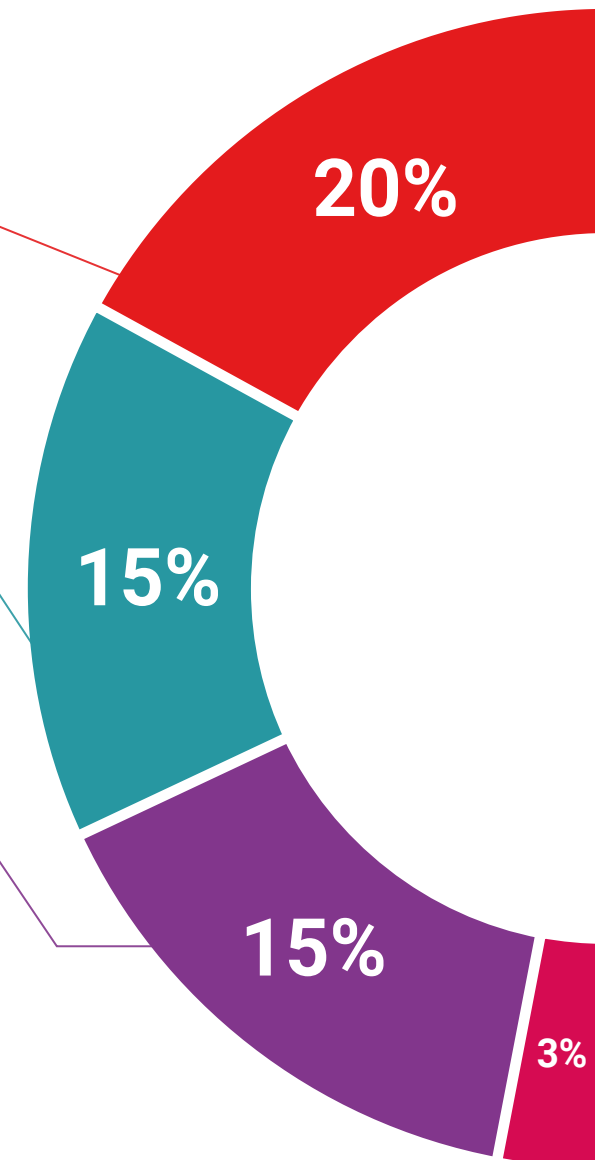
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

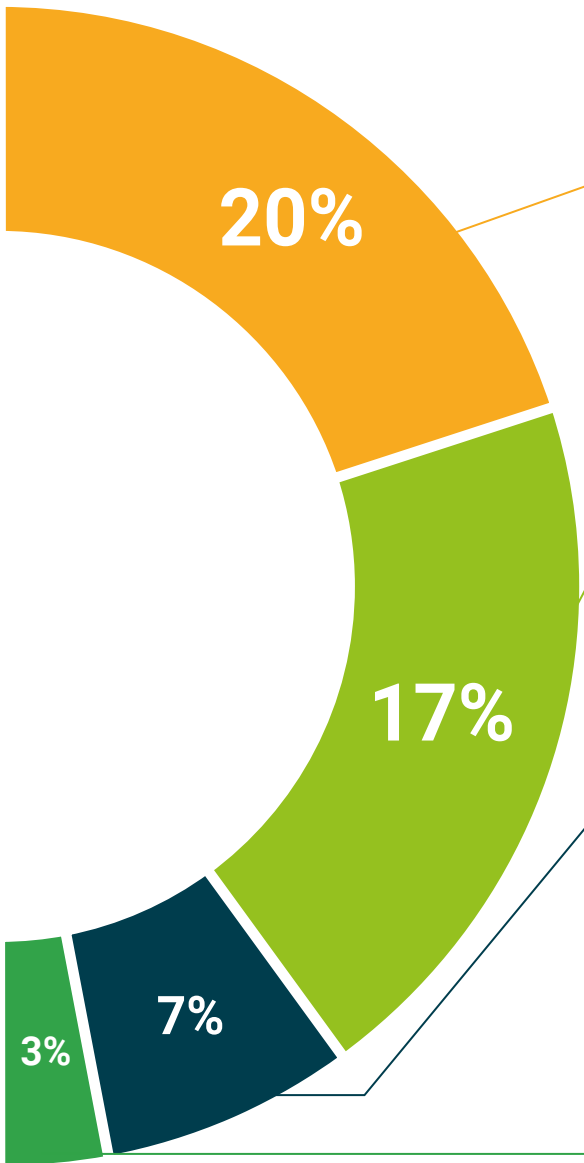
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 Hand Ultrasound in Physiotherapy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 program will allow you to obtain your **Postgraduate Certificate in Hand Ultrasound in 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** title 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 Certificate in Hand Ultrasound in Physiotherapy**

Modality: **online**

Duration: **6 weeks**

Accreditation: **5 ECTS**





future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

development language

virtual classroom

**tech** global  
university

## Postgraduate Certificate Hand Ultrasound in Physiotherapy

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