



Postgraduate Diploma

Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-wrist-hand-musculoskeletal-ultrasound-rehabilitation-doctor

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Certificate





tech 06 | Introduction

The use of ultrasound by rehabilitation Doctors allows greater efficiency in many treatments, as well as to assess the evolution of the patient with objective data and increase the safety of invasive treatments of rehabilitation medicine.

This Postgraduate Diploma is an excellent option for training in ultrasound, due to the quality of the material provided and the quality of the teaching team, made up of professors who are highly prestigious professionals with years of experience in both ultrasound and teaching. In addition, some of them have several high impact scientific publications, and are creators and members of the Board of Directors of the Spanish Society of Ultrasound in Physiotherapy (SEEFI).

The program is designed to provide training equivalent to 16 ECTS credits and 400 hours of study. All theoretical and practical knowledge is presented through high quality multimedia content, analysis of clinical cases prepared by experts, master classes and video techniques that allow the exchange of knowledge and experience, maintain and update the training level of its members, create protocols for action and disseminate the most important developments in the specialty. With online training, students can organize their time and pace of learning, adapting it to their schedules, in addition to being able to access the contents from any computer or mobile device.

This Postgraduate Diploma in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor contains a complete and up to date scientific program. The most important features include:

- The development of case studies presented by experts in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor. The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional.
- News on the role of the rehabilitation Doctor
- Practical exercises where self-assessment can be used to improve learning.
- Algorithm-based interactive learning system for decision-making in the situations that are presented to the student.
- Special emphasis on evidence-based rehabilitative medicine and research methodologies in Musculoskeletal Ultrasound of the Wrist and Hand.
- 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



Upgrade your knowledge through the Postgraduate Diploma program in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor"



This Postgraduate Diploma may be the best investment you can make in selecting a refresher program for two reasons: in addition to updating your knowledge in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor, you will obtain a degree certified by TECH University of Technology"

It includes in its teaching staff professionals belonging to the field of Musculoskeletal Ultrasound of the Wrist and Hand for the Rehabilitation Physician, who pour into this training the experience of their work, in addition to recognized specialists belonging to scientific societies of reference.

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 an immersive training program designed to train in real situations.

The design of this program is based on Problem-Based Learning, by means of which the rehabilitation physician must try to solve the different professional practice situations that arise throughout the course. For this, the rehabilitation physician will have the help of an innovative interactive video system made by recognized experts in the field of Musculoskeletal Ultrasound in Rehabilitation Medicine and with great teaching experience.

Increase your decision-making confidence by updating your knowledge with this Postgraduate Diploma.

Take the opportunity to learn about the latest advances in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor, and develop yourself in this exciting field.







tech 10 | Objectives



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
- Learning the use of the ultrasound scanner in the context of the competences of the of the rehabilitation physician



This Postgraduate Dipoma is the best way to get up to date on the bioethical aspects of providing the palliative care your patients need"





Specific Objectives

Module 1

- Learn about ultrasound and ultrasound scanning, its history and application to rehabilitation medicine
- Identify ultrasound patterns of the different structures of the Locomotor System
- To study the different devices available in ultrasound and learn how to use them in a beneficial way
- 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 scanning
- Define the types of images obtained by ultrasound and the different tissue patterns.

Module 2

- Describe the sonoanatomy of the wrist joint.
- Describe the normal examination of the structures of the dorsal face.
- Describe the normal examination of the structures of the palmar face.
- Identify the most common lesions, for a correct ultrasound-guided treatment and/or follow-up of their evolution.
- Learn how to perform dynamic ultrasound-guided assessment tests.
- Describe less common pathologies that may affect the wrist joint.

Module 3

- · Describe the sonoanatomy of the hand joint.
- Describe the normal examination of the structures of the dorsal face.
- Describe the normal examination of the structures of the palmar face.
- Identify the most common lesions, for a correct ultrasound-guided treatment and/or follow-up of their evolution.
- · Learn how to perform dynamic ultrasound-guided assessment tests.
- Describe less common pathologies that can affect the hand.





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Guest Director



Dr. Castillo, Juan Ignacio

- Head of Physical Medicine and Rehabilitation Service. 12 de Octubre Hospital. Madrie
- Associate Professor Complutense University of Madrid. Faculty of Medicine. 2016
- Collaborating Professor at Complutense University of Madrid. 2011-2016
- Teaching Coordinator in Continuing Education Courses of the Health Department of the Community of Madrid: "Tertiary Prevention in Chronic Cardiopathic Patients. Cardiac Rehabilitation".
- Master's Degree in Cardiac Rehabilitation. SEC-UNED
- Master's Degree in Disability Assessment. Autonomous University of Madrid
- Master's Degree in Children's Disability. Complutense University of Madrid
- Doctorate Course: Neurosciences. University of Salamanca.
- Degree in Medicine and Surgery. University of Salamanca.
- Continuing Education Coordinator of the Spanish Society of Cardiology in Exercise Testing with Oxygen Consumption.

Co-Direction



Dr. Santiago Nuño, Fernando

- Physiotherapist Osteopath, Podiatrist and Co-Director of Nupofis Clinic
- Diploma in Physiotherapy from San Pablo CEU University.
- Diploma in Podiatry from San Pablo CEU University.
- Postgraduate in Osteopathy CO by the School of Osteopathy of Madrid University of Alcalá
- Currently lecturer in Ultrasound courses for podiatrists and rehabilitation doctors and in the Master of Advanced Ultrasound Sonoanatomy for rehabilitation doctors at the European University of Madrid.
- Postgradaute in Advanced Musculoskeletal Ultrasound Donostia-San Sebastián
- Specialist in Biomechanical Gait Exploration
- Master's Degree in Manual Therapy from the Complutense University of Madrid.
- Master's Degree in On-line Research in Podiatry by the Rey Juan Carlos University.
- Avanfı Expert in Echoquided Infiltrations
- International Course on Musculoskeletal Ultrasound by the Spanish Society of Ultrasound.
- International Podiatric Surgical Specialist Course by the New York College of Podiatric Medicine
- Postgraduate Course in Medical and Surgical Podiatry of the foot by the Complutense University of Madrid.

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Professors

Dr. Rivillas Gómez, Alberto

- Resident intern in Physical Medicine and Rehabilitation at University Hospital 12 de Octubre.
- Graduate in Medicine from Rovira i Virgil University.
- Director of doctoral theses at the Rovira i Virgil University, Faculty of Medicine.
- Course Spinal Cord Injury Management, multidisciplinary approach at the Hospital Nacional Paraplegics of Toldedo
- Online continuing education course on Analgesics Management at Grunenthal
- Course "Center of Excellence in Peripheral Neuropathic Pain" at the University Hospital of La Princesa, Madrid.
- Course "Initiation to Cardiac Rehabilitation" in Hospital University Doce Octubre, Madrid

Dr. Uzquiano Guadalupe, Juan Carlos

- Resident intern of Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre, Madrid.
- Collaborating physician in practical teaching at the Department of Radiology, Rehabilitation and Physiotherapy of the Faculty of Medicine of the Complutense University of Madrid 20218-2029
- Master's Degree in Musculoskeletal Ultrasound and Ultrasound-Guided Interventionism by San Pablo CEU Foundation
- Postgraduate Course in Children's Rehabilitation by Francisco de Vitori University.
- Extracorporeal Shock Waves Course by European College of Physical Medicine and Rehabilitation
- Master's Degree in Clinical Reasoning and Practice from the University of Alcalá, Spain

- Medical Degree from the University of Alcalá in Madrid, Spain.
- Specialist in Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre, in Madrid, Spain

Dr. Juano Bielsa, Álvaro

- Resident intern in Physical Medicine and Rehabilitation at University Hospital 12 de Octubre.
- Degree in Medicine from the University of Zaragoza
- Master's Degree in Clinical Medicine at the Universidad Camilo José Cela
- Introductory Course on Pain Treatment at the Madrid Pain Society, King Juan Carlos University
- Introductory Course on Musculoskeletal Ultrasound at the Official College of Physicians of Madrid
- Postgraduate Course in Musculoskeletal Ultrasound. Panamericana/UFV
- Spinal Cord Injury Course. Multidisciplinary Approach. (National Hospital of Paraplegics)

Dr. Carmona Bonet, María A

- Associate Professor in Health Sciences. Complutense University of Madrid. Faculty
 of Medicine. Department of Radiology, Rehabilitation and Physiotherapy
- Specialist Physician in Physical Medicine and Rehabilitation University Hospital 12

de Octubre, Madrid

- Collaborating doctor of the Department of Physical Medicine and Rehabilitation and Medical Hydrology at the University Hospital 12 de Octubre, in the subject "Physical Medicine and Rehabilitation" of the 3rd year of Medicine at the Complutense University of Madrid 2008-2019.
- Doctor from the Complutense University of Madrid, School of Medicine, Department of Physical Medicine and Rehabilitation.
- Master's Degree in Childhood Disability. Complutense University of Madrid

- Degree in Medicine and Surgery from the Complutense University of Madrid
- Member of the Spanish Society of Rehabilitation and Physical Medicine.

Dr. López Sáez, Mireya

- Specialist in Physical Medicine and Rehabilitation at the University Hospital 12 de Octubre, Madrid.
- Post-Covid assessment unit, through the evaluation of possible sequelae after COVID-19 infection in the rehabilitation office.
- Collaborating physician in practical teaching at the Department of Physical Medicine and Rehabilitation, Medical Hydrology of the Faculty of Medicine at the Complutense University of Madrid. 2015-2019
- Degree in Medicine from Rey Juan Carlos University, Madrid, Spain.
- Basic and Advanced Cardio-Pulmonary Resuscitation Course. Doce de Octubre University Hospital, Madrid
- Member of ICOMEN: Illustrious Official College of Physicians of the Community of Madrid
- Full Member of the Rehabilitation Center Society

Dr. García Gómez, Nuria

- Specialist in Physical Medicine and Rehabilitation. Doce de Octubre Hospital. Madrid
- Specialist in Family and Community Medicine: Gregorio Marañón General University Hospital
- Collaborating Physician of the Department of Physical Medicine and Rehabilitation and Medical Hydrology of the Complutense University of Madrid, at the University Hospital 12 de Octubre 2013-2020.
- Multiprofessional Family and Community Care Teaching Unit, Southeast Health Area, Southeast Health Area, Madrid 2011
- Expert in Neurorehabilitation, Institute of Continuing Education of the University of Barcelona
- Degree in Medicine and Surgery: Alcalá de Henares University.

Dr. Sevilla Torrijos, Gustavo

- Area Specialist in the Rehabilitation Service of the University Hospital 12 de Octubre, Madrid.
- Area Specialist in the Rehabilitation Service of the University Hospital of Torrejón, Madrid 2012 - 2018.
- Specialist Physician in the Rehabilitation Unit of the Hospital de Guadarrama 2008 -2012
- "Specialist in Integral Assistance in Health Emergencies and Emergencies", Degree of the European University Miguel de Cervantes.
- Member of the Spanish Society of Rehabilitation and Physical Medicine (SERMEF).
 Physical Medicine (SERMEF)
- Course in Diagnostic Imaging in Musculoskeletal Pain
- Refresher Course in Localized Neuropathic Pain
- Course on Osteoarthritis and Pain Sensitization
- Degree in Medicine from the Complutense University of Madrid.

Dr. Belón Pérez, Pedro

- Expert in musculoskeletal ultrasonography
- Postgraduate Professor at UCM, USAL, UAM and UMA
- Master's Degree in Traumatological and Sports Physiotherapy by the Pontifical University of Salamanca, Spain.
- SEECO

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Dr. Casado Hernández, Israel

- Podiatrist Sonographer
- Master's Degree in Podiatric Research
- Expert in Podiatric foot surgery and medical foot care
- GP, Phd, MSc, BSc, PG Cert Vitalpie Clinic

Dr. García Expósito, Sebastián

- Advanced Technician in Diagnostic Imaging and Radiation Therapy
- Expert in musculoskeletal ultrasonography
- Professor of Ultrasound
- Armstrong International Clinic

Dr. Moreno, Cristina Elvira

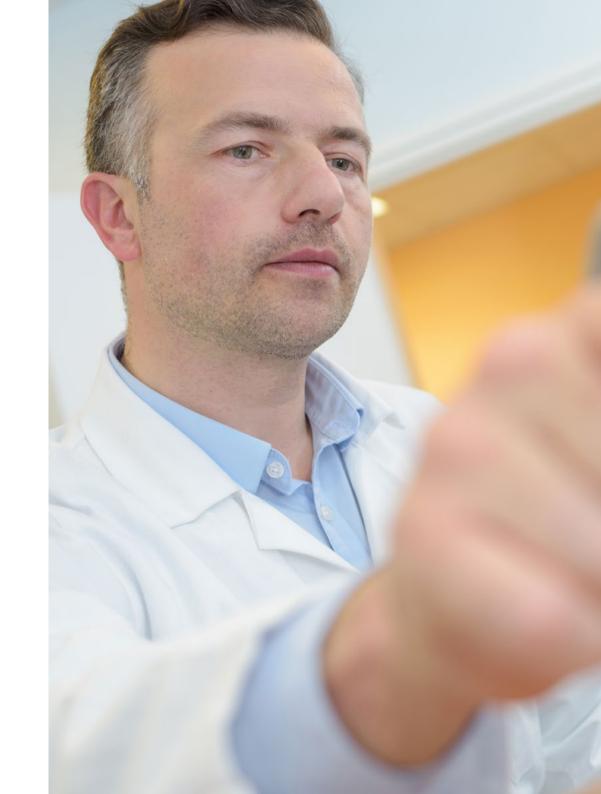
- Physiotherapist
- Expert in Dry needling and MSK ultrasound.
- Pilates Floor Pilates and Hypopressive Abdominal Gymnastics Teacher
- Clínica Nupofis, Madrid

Dr. Nieri, Martín

- Advanced Technician in Diagnostic Imaging and Radiation Therapy
- Expert in musculoskeletal ultrasonography
- Professor of Ultrasound

Dr. Pérez Calonge, Juan José

- Podiatrist Sonographer
- Master's degree in health expertise
- Expert in Medical-Surgical Podiatry of the Foot
- PhDs, MSc, BSc, PG Cert Clinica Gayarre





Course Management | 19 tech

Dr. Sánchez Marcos, Julia

- Physiotherapist, Osteopath
- Expert in Sonoanatomy of the locomotor system Clínica Nupofis Madrid

Dr. Santiago Nuño, José Ángel

- Physiotherapy, Osteopathy and Nutrition
- Expert in Musculoskeletal Ultrasonography
- Nupofis Clinic Madrid

Dr. Teijeiro, Javier

- Physiotherapy and Osteopathy
- Professor Musculoskeletal Ultrasound
- SEEFI SEECO
- Service Director in Ultrasound Assistance Teleradiology SL





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Module 1. Basic Ultrasound

- 1.1. Basic Ultrasound I
 - 1.1.1. General Aspects of Ultrasound
 - 1.1.2. Physical Basis of Ultrasound. Piezoelectric Effect
- 1.2. Basic Ultrasound II
 - 1.2.1. Knowledge of the Equipment
 - 1.2.2. Equipment Operation: 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 Ultrasound Imaging and Different Tissue Patterns
 - 1.3.4. Dynamic Maneuvers
 - 1.3.5. Advantages and Disadvantages of Ultrasound

Module 2. Ultrasound of the Upper Limb: Wrist

- 2.1. Normal Sonoanatomy of the Wrist
 - 2.1.1. Dorsal Face Scan
 - 2.1.2. Palmar Face Scan
- 2.2. Wrist Pathology
 - 2.2.1. Most Common Tendon Pathology
 - 2.2.1.1. Breaks
 - 2.2.1.2. Tendinopathies
 - 2.2.1.3. Tenosynovitis and Paratendinitis
 - 2.2.1.4. Dorsal Region Injuries
 - 2.2.1.5. Compartment Injuries
 - 2.2.1.5.1. Description
 - 2.2.1.5.2. Classification
 - 2.2.1.6. Injuries of the Palmar Region
 - 2.2.1.6.1. Flexor Tendon Injuries
 - 2.2.1.6.2. Ulnar Facet Injuries
 - 2.2.1.6.3. Triangular Fibrocartilage Lesion
 - 2.2.2. Other Pathologies of the Wrist Joint
- 2.3. Dynamic Wrist Tests
 - 2.3.1. Fist Clench Test to Assess Wrist Stability



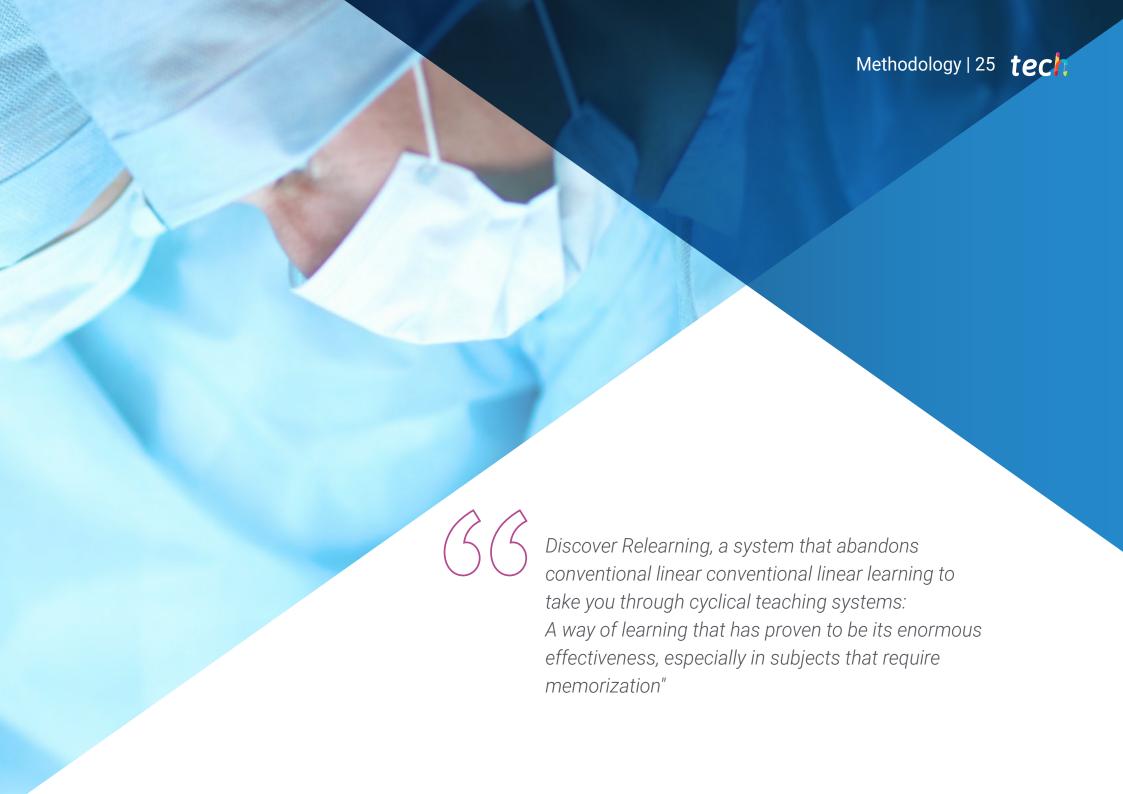
Module 3. Ultrasound of the Upper Limb: Hand

- 3.1. Normal Sonoanatomy of the Hand
 - 3.1.1. Dorsal Face Scan
 - 3.1.2. Palmar Face Scan
- 3.2. Hand Pathology
 - 3.2.1. Most Common Hand Pathologies
 - 3.2.1.1. Anterior Face Lesions
 - 3.2.1.1.1. Spring Finger
 - 3.2.1.1.2. Pulley Injuries.
 - 3.2.1.1.3. Flying Plaque Lesions
 - 3.2.1.2. Dorsal Face Injuries
 - 3.2.1.2.1. Boxer's Knuckle
- Hand Dynamic Tests
 - 3.3.1. Pulley Slippage Test



A unique, key, and decisive training experience to boos training experience to boost your professional development"





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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. Specialists 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 in the physician's professional practice.



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:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student 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.





Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

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.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



Methodology | 29 tech

At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years old.

Re-learning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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 TECH's learning system is 8.01, according to the highest international standards.

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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.



Surgical Techniques and Procedures on Video

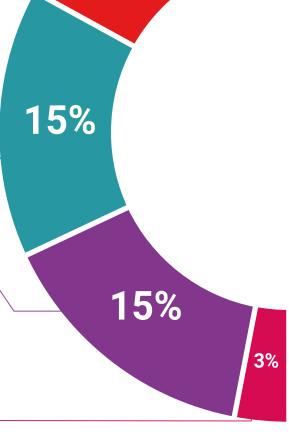
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



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 exclusive multimedia content presentation training Exclusive 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 your goals.



Classes

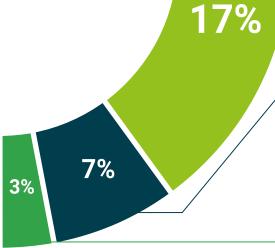
There is scientific evidence on the usefulness of learning by observing experts: The system termed Learning from an Expert strengthens knowledge and recall capacity, and generates confidence in the face of difficult decisions in the future.



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.









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This Postgraduate Certificate in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor contains the most complete and up to date scientific program on the market.

After passing the evaluation, the student will receive a Postgraduate Diploma issued by **TECH Technological University.**

This Postgraduate Certificate contributes in a relevant way to the development of the continuing education of the professional and provides a high university curricular value to their training, and it is 100% valid in all public examinations, professional careers and labor exchanges in any Spanish Autonomous Community.

Title: Postgraduate Certificate in Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor

ECTS: 16

Official Number of Hours: 400 hours.



Ar./Ms._____, with identification number _____ For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor

This is a qualification awarded by this University, with 16 ECTS credits and equivalent to 400 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

s qualification must always be accompanied by the university degree issued by the competent authority to p

que TECH Code: AFWORD23S techtitute.com/certific

^{*}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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Postgraduate Diploma

Wrist and Hand Musculoskeletal Ultrasound for the Rehabilitation Doctor

- » Modality: online
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