

Master's Degree

Musculoskeletal Ultrasound in Rehabilitation Medicine





Master's Degree

Musculoskeletal Ultrasound in Rehabilitation Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitude.com/us/medicine/master-degree/master-musculoskeletal-ultrasound-rehabilitation-medicine

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01

Introduction

The improvement in the quality of ultrasound images, thanks to new technologies, has given an important boost to musculoskeletal ultrasound, predominantly being used in the diagnosis of soft tissue and joint lesions. This is an advance that has led to a reduction in the size of the devices themselves, improved non-invasive techniques and reduced exposure to radiation. All of these are new developments that the medical professional should be aware of. This is why this program is taught 100% online, with multimedia content in accordance with current academic teaching.





“

Technological progress in ultrasound requires professionals to constantly update their knowledge. This Master's Degree provides you with the knowledge you are looking for”

The great benefits of musculoskeletal ultrasound have led to greater acceptance of this technique by medical professionals. Its usefulness in the diagnosis and treatment of injuries affecting muscles, tendons, ligaments or nerves has shifted the balance of its use against other methods and tools.

This Master's Degree provides medical professionals with up-to-date knowledge on Musculoskeletal Ultrasound in Rehabilitation Medicine through innovative multimedia content provided by a specialized teaching team with extensive experience in the health area.

A program taught exclusively online, where students can expand their knowledge of sonoanatomy and the different pathologies affecting the shoulder, elbow, wrist, hand, hip, knee, leg, ankle, foot and forefoot. Through a theoretical-practical approach, students will also delve deeper into each of them, aided by case studies that will bring them closer to real situations that they may encounter in their daily clinical practice.

A university program that provides students not only with exhaustive and recent knowledge in this field, but also with a flexible and convenient format, since they only need an electronic device to access the syllabus which is hosted on the virtual platform. In creating this syllabus, this academic institution has used the latest teaching technology through which the professional will develop in a more natural way thanks to the Relearning system used by TECH. Physicians, therefore, have a unique opportunity to broaden their extensive knowledge in a high-level program that is compatible with their work and personal responsibilities.

This **Master's Degree in Musculoskeletal Ultrasound in Rehabilitation Medicine** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in medicine
- ♦ 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
- ♦ 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



Thanks to this qualification, you will expand your knowledge in the field of diagnosis and treatment of joint injuries using ultrasound"

“

This is a university program that provides you with the most exhaustive knowledge, with the necessary scientific rigor and under the guidance of a prestigious teaching team”

The program's teaching staff includes professionals from the sector who contribute the experience of their work to this program, as well as renowned specialists from reference 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 learning programmed to train 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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

A university course which you can access 24 hours a day from your computer or tablet. TECH adapts to you.

It delves into the most recent advances in dynamic assessment tests for shoulder injuries.



02 Objectives

The main objective of this Master's Degree is to expand the knowledge of medical professionals who wish to get up to date on the latest advances in Musculoskeletal Ultrasound in Rehabilitation Medicine. Therefore, at the end of the 12 months of this program, the student will have gained up-to-date knowledge of the main techniques used in the diagnosis and treatment of pathologies. In addition, students will not be alone in this process, as they will be accompanied by the teaching team that will guide them to achieve their goals.



“

TECH provides you with a quality and flexible university program, so that you can combine it with your professional responsibilities”



General objectives

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



You will be able to gain up-to-date knowledge of the ultrasound technique based on the latest scientific evidence





Specific objectives

Module 1. Basic Ultrasound

- ♦ Learn what ultrasound and an ultrasound scanner consist of, their history and their application in physiotherapy
- ♦ Identify the ultrasound patterns of the different structures of the locomotor system
- ♦ Study the different artifacts that exist 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
- ♦ Define the types of images obtained by ultrasound and the different tissue patterns

Module 2. Upper Limb Ultrasound: Shoulder

- ♦ Identify the main structures of the shoulder that are visible in ultrasound
- ♦ Describe the normal examination of the structures of the anterior aspect of the shoulder
- ♦ Describe the normal examination of the structures of the lateral aspect of the shoulder
- ♦ Describe the normal examination of the structures of the posterior aspect of the shoulder
- ♦ Recognize the most common lesions of the shoulder, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution
- ♦ Describe the least common pathologies that can affect the shoulder joint
- ♦ Learn how to perform ultrasound-guided dynamic assessment tests for the shoulder

Module 3. Upper Limb Ultrasound: Elbow

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

Module 4. Upper Limb Ultrasound: Wrist

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

Module 5. Upper Limb Ultrasound: Hand

- 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

Module 6. Lower Limb Ultrasound: Hip

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

Module 7. Lower Limb Ultrasound: Thigh

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

Module 8. Lower Limb Ultrasound: Knee

- 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

Module 9. Lower Limb Ultrasound: Leg

- ♦ Learn the echo anatomy of the different structures of the leg in all its compartments
- ♦ Identify the muscles of the leg and the most common muscular lesions in this part of the body
- ♦ Describe the normal examination of the structures of the anterior aspect of the leg
- ♦ Describe the normal examination of the structures of the lateral aspect of the leg
- ♦ Describe the normal examination of the structures of the posterior aspect of the leg
- ♦ Learn how to perform ultrasound-guided dynamic assessment tests for the leg
- ♦ Describe the least common pathologies that can affect the leg

Module 10. Lower Limb Ultrasound: 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 11. Lower Limb Ultrasound: Foot

- ♦ Recognize the most common lesions of the foot, 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 12. Lower Limb Ultrasound: 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 Skills

This Master's Degree allows students to enhance their skills and abilities in the performance of tests, in the distinction of the different ultrasound patterns and the techniques required for the recognition of the most common lesions from which people can recover through the most appropriate ultrasound-guided treatment. This will be possible thanks to the exhaustive content provided by the team of specialists that make up this university program.





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*Gain access to 1,500 hours of up-to-date content
in the field of Musculoskeletal Ultrasound”*



General skills

- ♦ Possess and understand the knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ♦ Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study
- ♦ Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- ♦ Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- ♦ Acquire the learning skills that will enable them to continue studying in a manner that will be largely self-directed or autonomous



Enhance your skills and competencies in ultrasound-guided treatment of the joints”





Specific skills

- ♦ Understand and relate each one of the physical bases of the production of ultrasound
- ♦ Identify the ultrasound patterns of the different structure of the locomotor system
- ♦ Differentiate ultrasound patterns for the subsequent identification of normality and lesions in an ultrasound
- ♦ Define the legal framework for ultrasound for rehabilitation physicians
- ♦ Identify the main structures of the shoulder that are visible with ultrasound
- ♦ Recognize the most common lesions, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution
- ♦ Integrate dynamic ultrasound-guided assessment tests into a normal system
- ♦ Know the sonoanatomy of the elbow, wrist and hand joints
- ♦ Identify the most common lesions, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution
- ♦ Learn the echo anatomy of the different structures of the hip
- ♦ Identify the muscles of the thigh and the most common muscular lesions
- ♦ Recognize the tendon and ligament structures of the knee and their most common injuries
- ♦ Learn the echo anatomy of the different structures of the leg in all its compartments
- ♦ Identify the muscles of the leg and the most common muscular lesions
- ♦ Learn the sonoanatomy of the ankle and foot
- ♦ Recognize the most common lesions of this zone, to ensure correct ultrasound-guided treatment and/or monitoring of their evolution

04

Course Management

In its maxim of offering elite education for all, TECH meticulously selects the teaching staff for each of its programs. Therefore, the medical professionals who study this university course, will be supported by a team of specialists with extensive experience in physical medicine and rehabilitation, physiotherapy and more specifically, in Musculoskeletal Ultrasound. In addition, students will be able to count on this teaching staff to resolve any doubts that may arise regarding the syllabus of this Master's Degree.



“

You will have the support of a team specializing in Physical Medicine and Rehabilitation. They will guide you throughout the 12 months of online and intensive study”

Management



Dr. Castillo, Juan Ignacio

- ♦ Chief of Physical Medicine and Rehabilitation Service, 12 de Octubre Hospital, Madrid
- ♦ Teaching collaborator of the Faculty of Medicine at the Complutense University of Madrid
- ♦ Collaborating Professor at the Complutense University of Madrid
- ♦ Master's Degree in Cardiac Rehabilitation, SEC-UNED
- ♦ Master's Degree in Disability Assessment, Autonomous University of Madrid
- ♦ Master's Degree in Child Disability, Complutense University of Madrid
- ♦ Degree in Medicine and Surgery, University of Salamanca

Professors

Dr. Rivillas Gómez, Alberto

- ♦ Resident Medical Intern in Physical Medicine and Rehabilitation at 12 de Octubre University Hospital
- ♦ Degree in Medicine from Rovira i Virgil University
- ♦ Doctoral thesis director in the Faculty of Medicine at the Rovira i Virgil University

Dr. Juano Bielsa, Álvaro

- ♦ Resident Medical Intern in Physical Medicine and Rehabilitation at 12 de Octubre University Hospital
- ♦ Master's Degree in Clinical Medicine from the Camilo José Cela University
- ♦ Degree in Medicine from the University of Zaragoza

Dr. Uzquiano Guadalupe, Juan Carlos

- ♦ Resident Medical Intern in Physical Medicine and Rehabilitation at 12 de Octubre University Hospital, Madrid
- ♦ Collaborating physician in teaching practice at the Department of Radiology, Rehabilitation and Physiotherapy in the Faculty of Medicine, Complutense University of Madrid
- ♦ Master's Degree in Musculoskeletal Ultrasound and Ultrasound-Guided Interventional Procedures from the San Pablo Foundation CEU
- ♦ Master's Degree in Clinical Reasoning and Clinical Practice, Alcalá University
- ♦ Degree in Medicine from the University of Alcalá Madrid, Spain

Dr. Santiago Nuño, Fernando

- ♦ Physiotherapist-Osteopath, Podiatrist and Co-Director of Nupofis Clinic
- ♦ Specialist in Biomechanical Gait Examination
- ♦ Lecturer in ultrasound courses for podiatrists and rehabilitation doctors and in the Master's Degree of Advanced Ultrasound Sonoanatomy for Physiotherapists at the European University of Madrid
- ♦ Diploma in Physiotherapy from San Pablo CEU University
- ♦ Diploma in Podiatry from San Pablo CEU University
- ♦ Expert in Osteopathy CO from the School of Osteopathy of Madrid, University of Alcalá
- ♦ Advanced Ultrasound Sonoanatomy for rehabilitation physicians at the European University of Madrid
- ♦ Expert in Advanced Musculoskeletal Ultrasound Donostia-San Sebastián
- ♦ Avanfi Expert in Ultrasound-guided Infiltrations
- ♦ Master's Degree in Manual Therapy from the Complutense University of Madrid
- ♦ Master's Degree in Online Research in Podiatry from Rey Juan Carlos University

Dr. Sevilla Torrijos, Gustavo

- ♦ Area Specialist in the Rehabilitation Department of 12 de Octubre University Hospital, Madrid
- ♦ Area Specialist in the Rehabilitation Department of Torrejón University Hospital, Madrid
- ♦ Specialist of the Rehabilitation Unit of the Guadarrama Hospital
- ♦ Member of the Spanish Society of Rehabilitation and Physical Medicine (SERMEF)
- ♦ Degree in Medicine from the Complutense University of Madrid

Dr. García Gómez, Nuria

- ♦ Specialist in Physical Medicine and Rehabilitation at 12 de Octubre Hospital, Madrid
- ♦ Specialist in Family and Rehabilitation Medicine at 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 12 de Octubre University Hospital
- ♦ Multiprofessional Teaching Unit of Family and Community Care, Southeast Health Area
- ♦ Expert in Neurorehabilitation, Institute of Continuing Education at the University of Barcelona
- ♦ Degree in Medicine and Surgery: Alcalá de Henares University

Dr. Carmona Bonet, María A.

- ♦ Specialist Physician in Physical Medicine and Rehabilitation at 12 Octubre University Hospital, Madrid
- ♦ Associate Professor in Health Sciences in the Faculty of Medicine. Department of Radiology, Rehabilitation and Physiotherapy at the Complutense University of Madrid
- ♦ Collaborating Physician of the Department of Physical Medicine and Rehabilitation and Medical Hydrology of the 12 de Octubre University Hospital
- ♦ Member of the Spanish Society of Rehabilitation and Physical Medicine
- ♦ PhD from the Complutense University of Madrid
- ♦ Specialist in Childhood Disability by Complutense University of Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. López Sáez, Mireya

- ♦ Specialist in Physical Medicine and Rehabilitation at 12 de Octubre Hospital, Madrid
- ♦ Post-covid assessment unit, through the evaluation of possible sequelae after COVID-19 infection in the rehabilitation office
- ♦ Collaborating physician in teaching practice at the Department of Physical Medicine and Physiotherapy in the Faculty of Medicine, Complutense University of Madrid
- ♦ Member of ICOMEN: Illustrious Official College of Physicians of Madrid
- ♦ Full Member of the Rehabilitation Center Society
- ♦ Degree in Medicine from Rey Juan Carlos University, Madrid

Dr. Casado Hernández, Israel

- ♦ Ultrasound Podiatrist
- ♦ Research Master's Degree in Podiatry
- ♦ Expert in Podiatric Medical Foot Surgery

Dr. García Expósito, Sebastián

- ♦ Advanced Technician in Diagnostic Imaging and Radiation Therapy
- ♦ Expert in Musculoskeletal Ultrasound
- ♦ Professor of Ultrasound, International Armstrong Clinic

Dr. Moreno, Cristina Elvira

- ♦ Physiotherapist
- ♦ Expert in dry needling and MSK ultrasound
- ♦ Pilates, Floor Pilates and Hypopressive Abdominal Gymnastics Teacher, Nupofis Clinic, Madrid





Dr. Nieri, Martín Alejandro

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

Dr. Pérez Calonge, Juan José

- ♦ Ultrasound Podiatrist
- ♦ Master's Degree in Health Expertise
- ♦ Expert in Podiatric Medical Foot Surgery

Dr. Sánchez Marcos, Julia

- ♦ Physiotherapist, Osteopath
- ♦ Expert in Sonoanatomy of the Locomotor System, Nupofis Clinic, Madrid

Dr. Santiago Nuño, José Ángel

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

Dr. Teijeiro, Javier

- ♦ Physiotherapy and Osteopathy
- ♦ Professor of Musculoskeletal Ultrasound
- ♦ Member of the Spanish Society of Ultrasound in Physiotherapy (SEEFi) and the Spanish Society of Ultrasound (SEECO)
- ♦ Service Director in Ultrasound Assistance Teleradiology SL

05

Structure and Content

Medical professionals will have access, at all times, to a syllabus that has been developed by a teaching team who are experts in Musculoskeletal Ultrasound, and who have contributed their extensive knowledge in this area to the Master's Degree. A syllabus composed of 12 modules where, through enriched multimedia content (video summaries, detailed videos, diagrams, etc.), students will gain the most up-to-date knowledge in ultrasound, taking into account the different joints of the body and the pathologies that can occur in them.



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A syllabus that will allow you to deepen and strengthen your knowledge in a more visual and dynamic way. This way, you will enjoy a much more engaging and effective learning experience”

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. Upper Limb Ultrasound: Shoulder

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



Module 3. Upper Limb Ultrasound: Elbow

- 3.1. Normal Sonoanatomy of the Elbow
 - 3.1.1. Examination of the Anterior Aspect Structures
 - 3.1.2. Examination of the Lateral Aspect Structures
 - 3.1.3. Examination of the Medial Aspect Structures
 - 3.1.4. Examination of the Posterior Aspect Structures
- 3.2. Elbow Pathology
 - 3.2.1. Most Common Tendon Pathology
 - 3.2.2. Other Elbow Joint Pathology
- 3.3. Dynamic Tests on the Elbow

Module 4. Upper Limb Ultrasound: Wrist

- 4.1. Normal Sonoanatomy of the Wrist
 - 4.1.1. Dorsal Aspect Examination
 - 4.1.2. Palmar Aspect Examination
- 4.2. Wrist Pathology
 - 4.2.1. Most Common Tendon Pathology
 - 4.2.2. Other Wrist Joint Pathology
- 4.3. Dynamic Tests on the Wrist

Module 5. Upper Limb Ultrasound: Hand

- 5.1. Normal Sonoanatomy of the Hand
 - 5.1.1. Dorsal Aspect Examination
 - 5.1.2. Palmar Aspect Examination
- 5.2. Pathology of the Hand
 - 5.2.1. Most Common Pathologies of the Hand
- 5.3. Dynamic Tests on the Hands

Module 6. Lower Limb Ultrasound: Hip

- 6.1. Normal Sonoanatomy of the Hip
 - 6.1.1. Examination of the Anterior Aspect Structures
 - 6.1.2. Examination of the Lateral Aspect Structures
 - 6.1.3. Examination of the Medial Aspect Structures
 - 6.1.4. Examination of the Posterior Aspect Structures
- 6.2. Hip Pathology
 - 6.2.1. Most Common Tendon Pathology
 - 6.2.2. Most Common Muscular Pathology
 - 6.2.3. Other Hip Joint Pathology
- 6.3. Dynamic Tests on the Hip

Module 7. Lower Limb Ultrasound: Thigh

- 7.1. Normal Sonoanatomy of the Thigh
 - 7.1.1. Examination of the Anterior Aspect Structures
 - 7.1.2. Examination of the Lateral Aspect Structures
 - 7.1.3. Examination of the Medial Aspect Structures
 - 7.1.4. Examination of the Posterior Aspect Structures
- 7.2. Thigh Pathology
 - 7.2.1. Most Common Tendon Pathology
 - 7.2.2. Other Thigh Pathologies
- 7.3. Dynamic Tests on the Thigh



Module 8. Lower Limb Ultrasound: Knee

- 8.1. Normal Sonoanatomy of the Knee
 - 8.1.1. Examination of the Anterior Aspect Structures
 - 8.1.2. Examination of the Medial Aspect Structures
 - 8.1.3. Examination of the Lateral Aspect Structures
 - 8.1.4. Examination of the Posterior Aspect Structures
 - 8.1.4.1. Sciatic Nerve Examination
- 8.2. Knee Ligament Pathology
 - 8.2.1. Most Common Tendon Pathology
 - 8.2.2. Other Knee Joint Pathology
- 8.3. Dynamic Tests on the Knee

Module 9. Lower Limb Ultrasound: Leg

- 9.1. Normal Sonoanatomy of the Leg
 - 9.1.1. Examination of the Anterior Aspect Structures
 - 9.1.2. Examination of the Lateral Aspect Structures
 - 9.1.3. Examination of the Posterior Aspect Structures
- 9.2. Leg Pathology
 - 9.2.1. Most Common Pathologies of the Leg
- 9.3. Dynamic Tests on the Leg

Module 10. Lower Limb Ultrasound: Ankle

- 10.1. Normal Sonoanatomy of the Ankle
 - 10.1.1. Examination of the Anterior Aspect Structures
 - 10.1.2. Examination of the Lateral Aspect Structures
 - 10.1.3. Examination of the Medial Aspect Structures
 - 10.1.4. Examination of the Posterior Aspect Structures
- 10.2. Pathology of the Ankle
 - 10.2.1. Most Common Tendon Pathology
 - 10.2.2. Most Common Ligament Pathology
 - 10.2.3. Other Ankle Joint Pathologies
- 10.3. Dynamic Tests on the Ankle

Module 11. Lower Limb Ultrasound: Foot

- 11.1. Normal Sonoanatomy of the Foot
 - 11.1.1. Examination of the Dorsal Aspect Structures
 - 11.1.2. Examination of the Plantar Aspect Structures
 - 11.1.2.1. Plantar Fascia
 - 11.1.2.2. 1st Layer
 - 11.1.2.3. 2nd Layer
 - 11.1.2.4. 3rd Layer
 - 11.1.2.5. 4th Layer
- 11.2. Pathology of the Foot
 - 11.2.1. Most Common Pathology of the Foot
- 11.3. Dynamic Tests on the Foot

Module 12. Lower Limb Ultrasound: Forefoot

- 12.1. Normal Sonoanatomy of the Forefoot
 - 12.1.1. Examination of the Dorsal Aspect Structures
 - 12.1.2. Examination of the Plantar Aspect Structures
- 12.2. Forefoot Pathology
 - 12.2.1. Most Common Pathology of the Forefoot
- 12.3. Dynamic Tests on the Foot



A 100% online academic opportunity that provides you with the latest input from dynamic tests performed on the foot and hand"

06 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.



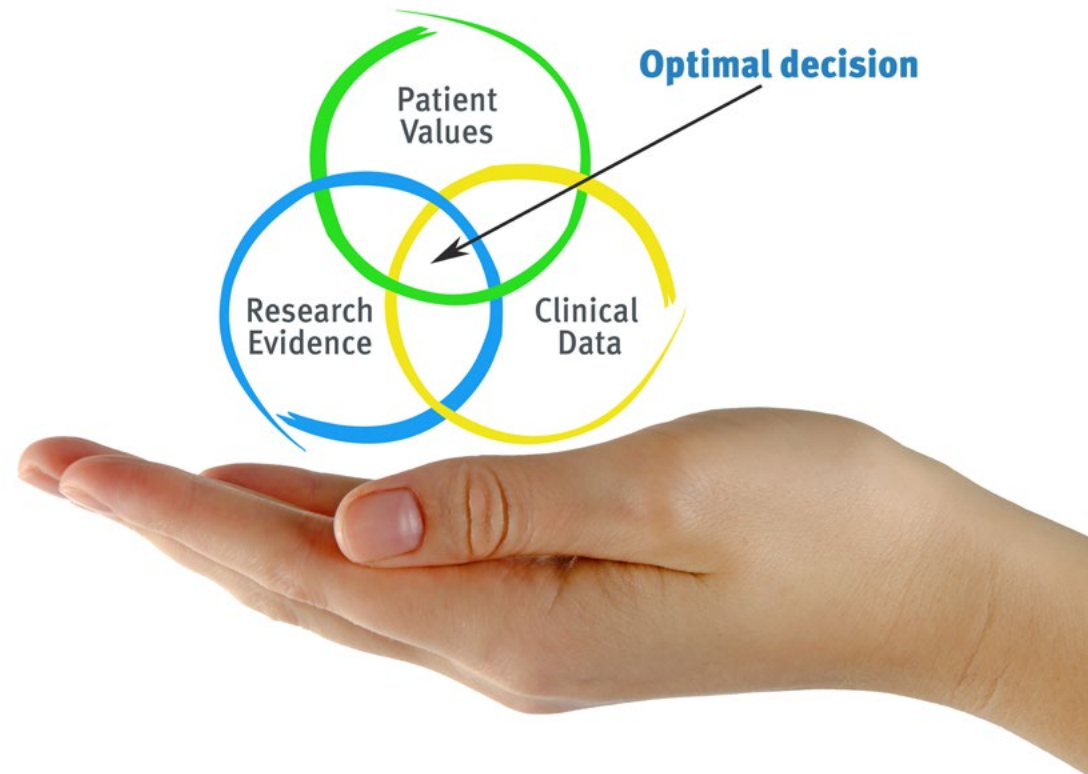
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization”

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. 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. 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 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:

1. 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.



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.

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.



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, 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 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 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.



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 highly 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

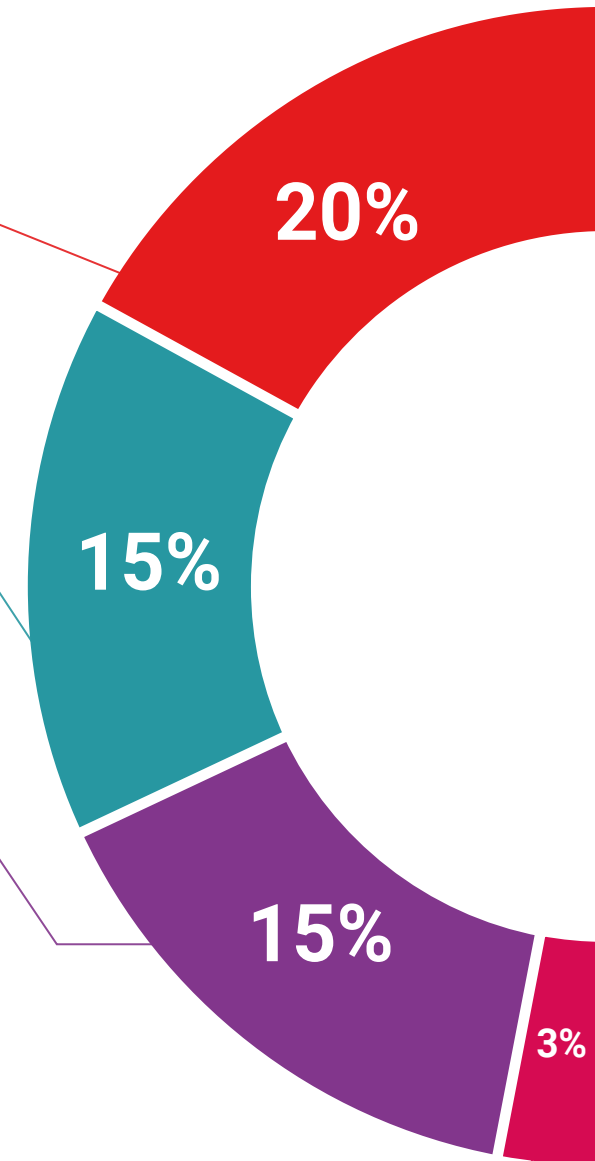
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

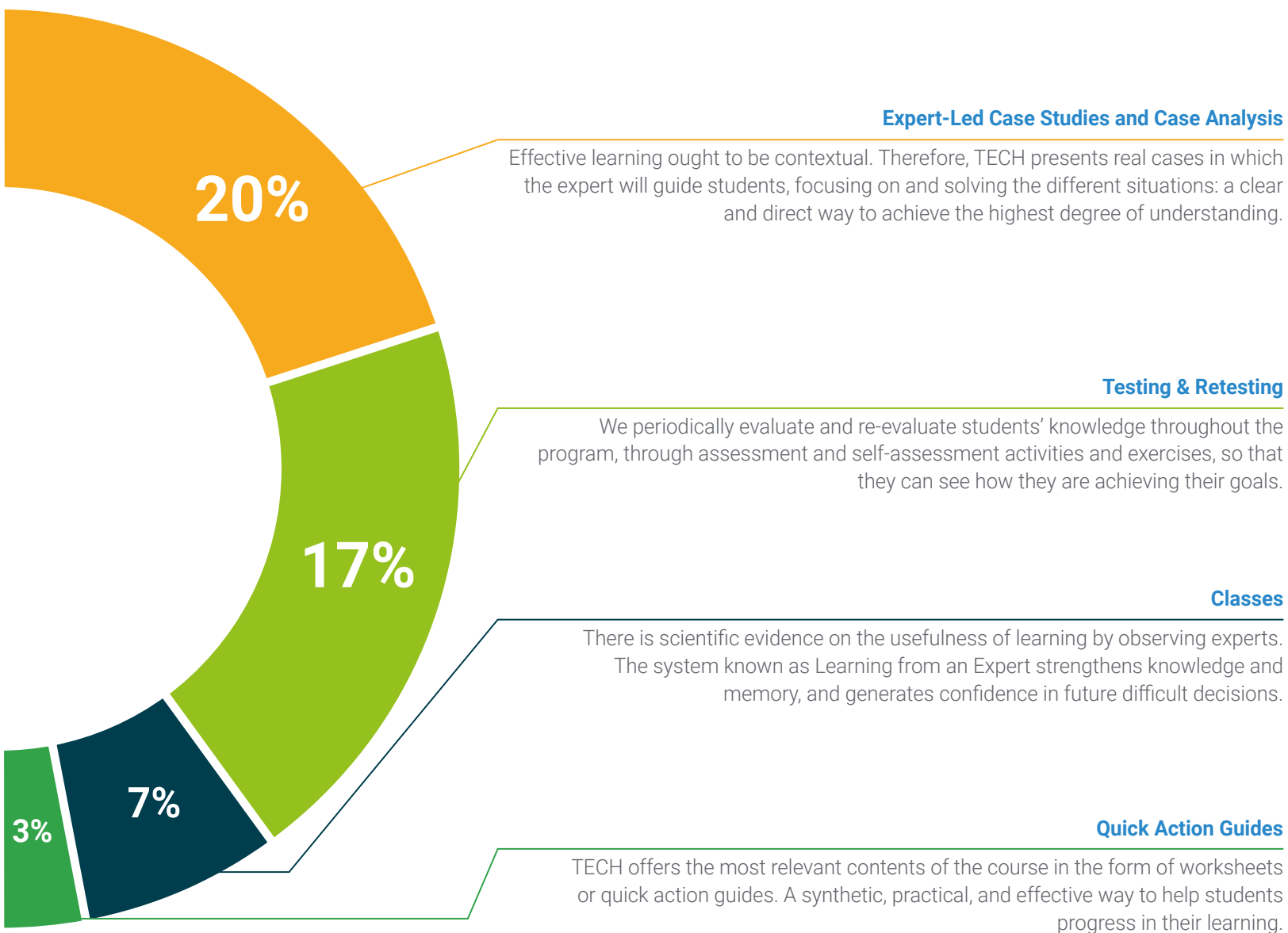
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





07 Certificate

The Master's Degree in Musculoskeletal Ultrasound in Rehabilitation Medicine guarantees you, in addition to the most rigorous and updated training, access to a Master's Degree issued by TECH Global University.



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*Successfully complete this program
and receive your university degree
without travel or laborious paperwork”*

This private qualification will allow you to obtain a **Master's Degree diploma in Musculoskeletal Ultrasound in Rehabilitation Medicine** 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.

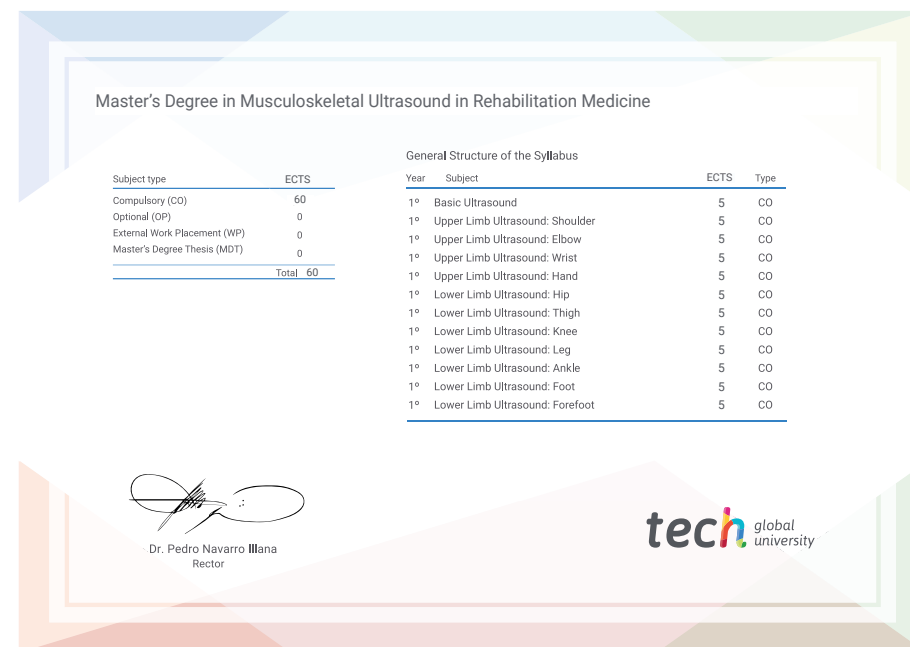
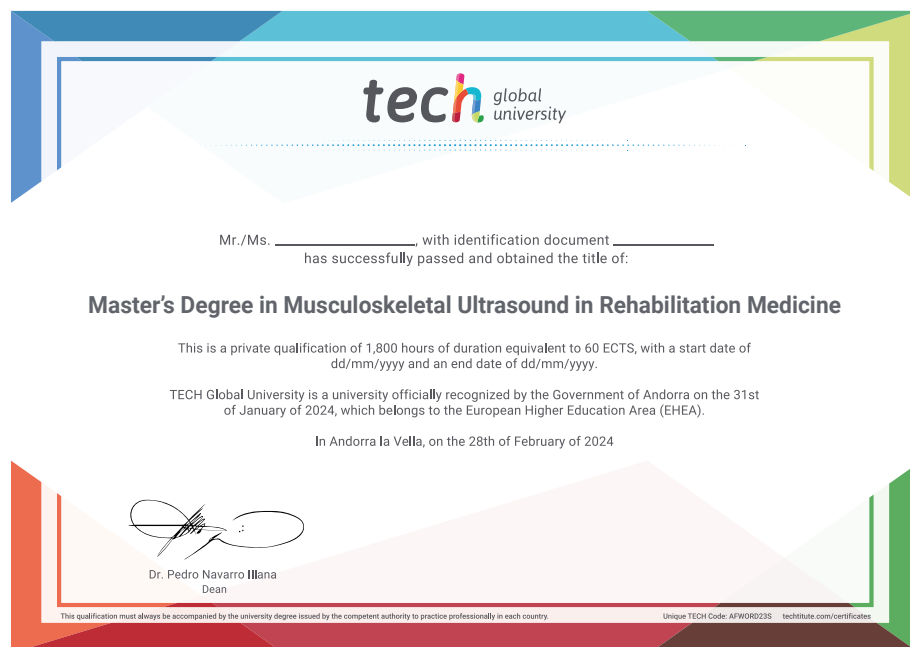
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Musculoskeletal Ultrasound in Rehabilitation Medicine**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**





Master's Degree

Musculoskeletal Ultrasound in Rehabilitation Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Master's Degree

Musculoskeletal Ultrasound in Rehabilitation Medicine

