

Postgraduate Diploma

Neurological Physiotherapy in
Neurodegenerative Diseases,
in Childhood and Tumors





Postgraduate Diploma Neurological Physiotherapy in Neurodegenerative Diseases, in Childhood and Tumors

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

Website: www.techtute.com/in/physiotherapy/postgraduate-diploma/postgraduate-diploma-neurological-physiotherapy-neurodegenerative-diseases-childhood-tumors

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01 Introduction

The wide variety of neurodegenerative diseases, complex diagnoses, different rates of progression and different prognoses, their multiple clinical manifestations, and rapid scientific and technical progress are all factors that necessitate specialized professionals in neurorehabilitation in order to ensure coordinated intervention in patients, and the physiotherapist is a key figure in this multidisciplinary team. To enhance the training of these professionals, at TECH Technological University we have designed this program on neurodegenerative diseases, childhood and tumors.





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*Specialize in neurological
physiotherapy and offer more
personalized care to people suffering
from neurodegenerative diseases”*

Physiotherapists working in neurological rehabilitation should specialize in the treatment of Neurodegenerative Diseases in order to help affected individuals improve symptoms, relieve pain, improve functional capacity, slow down the disabling process of the disease, and stimulate independence and physical functions, as physiotherapy has proven to be effective in alleviating the consequences of neurodegenerative diseases.

Thanks to this academic program, students will learn about degenerative nerve diseases, so that they will be able to identify the different symptoms and syndromes according to the affected region. As a result, they will learn to identify the clinical manifestations that will help them to understand their implications for the patient and for the therapeutic approach. Likewise, they will acquire the ability to assess neurodevelopment from ontogenesis and will be given the tools required to detect warning signs and, as a result, be able to make an early diagnosis, with special emphasis on the care of children.

Additionally, nervous system neoplasms and tumors will be studied in a specific way, teaching the professional how to identify symptoms according to the affected areas. This way, treatment will be programmed according to both the clinical stage and the variety of clinical manifestations detected: acquired brain damage, spinal cord injury, peripheral neuropathies, etc.

In short, TECH Technological University has set out to create contents of the highest teaching and educational quality that will turn students into successful professionals, following the highest quality standards in teaching at an international level. For this reason, TECH Technological University presents this program with comprehensive content that will help you become a leading neurological physiotherapist.

This **Postgraduate Diploma in Neurodegenerative Diseases, in Childhood and Tumors** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical case studies presented by specialists in Neurological Physiotherapy
- ♦ The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice.
- ♦ Exercises where the self-assessment process can be carried out to improve learning.
- ♦ Algorithm-based interactive learning system for decisionmaking.
- ♦ Special emphasis on innovative methodologies in Neurological Physiotherapy
- ♦ 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



Immerse yourself in the study of this high-level Postgraduate Diploma and improve your skills in therapies for people with degenerative diseases"

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This Postgraduate Diploma is the best investment you can make when selecting of a refresher program for two reasons: in addition to updating your knowledge in Neurological Physiotherapy, you will obtain a qualification from one of the leading online universities in the world: TECH Technological University”

Its teaching staff includes professionals belonging to the field of physiotherapy, who bring to this teaching the experience of their work, in addition to recognized specialists from leading societies and prestigious universities.

Its 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 education programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, whereby the physiotherapist must try to solve the different professional practice situations that arise throughout program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Neurological Physiotherapy in Neurodegenerative Diseases, in Childhood and Tumors.

This Postgraduate Diploma offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.

This 100% online Postgraduate Diploma will allow you to balance your studies with your professional work while increasing your knowledge in this field.



02 Objectives

The main objective of this program is to provide theoretical and practical learning, so that the physiotherapist can master neurological rehabilitation for people with degenerative diseases in a way that is both practical and rigorous.



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Our goal is to achieve academic excellence and help you achieve professional success. Don't hesitate any longer and join us”



General Objectives

- ◆ Acquire new knowledge in neuroscience applied to neurodegenerative diseases
- ◆ Promote a critical attitude that favors clinical practice based on the most recent scientific evidence and clinical reasoning
- ◆ Motivate physiotherapists to specialize in the field of neurological physiotherapy
- ◆ Provide comprehensive treatment plans





Specific Objectives

Module 1. Introduction to Neurodegenerative Diseases

- ♦ Gain in-depth knowledge of the major neurodegenerative diseases and syndromes and their characteristics
- ♦ Apply patient examination and assessment through clinical cases
- ♦ Analyze the scales and assessment tests through a systematic review
- ♦ Acquire in-depth knowledge of the different methods and concepts used by neurological physiotherapists
- ♦ Gain a deep understanding of the different therapeutic tools used by other professionals on the team
- ♦ Study the writing model for physiotherapy reports and their correct drafting

Module 2. Neurodegenerative Diseases in Childhood

- ♦ Assess the prognosis for recovery from neurological damage as a function of age by means of a normative neurodevelopment review
- ♦ Assess pediatric age for its specific and age-specific characteristics
- ♦ Develop the different specific approach models for pediatric physiotherapy
- ♦ Gain in-depth understanding of the implication of the educational and family environment in child rehabilitation

Module 3. Neoplasms or Nervous System Tumors

- ♦ Delve into the anatomical and functional bases of the nervous system involved in affected areas
- ♦ Detect the different symptoms and clinical manifestations
- ♦ Associate and discern other pathologies previously studied: clinical manifestations, diagnostic imaging, examination, treatment, etc
- ♦ Detect pain and discover the different ways to approach it
- ♦ Specialize physiotherapists in applying physiotherapy techniques adapted to the therapeutic possibilities (radiotherapy, chemotherapy, surgery) and to the specific injuries detected (motor, sensory, cognitive sequelae)



Specific training in Neurological Physiotherapy will allow great advances in people with degenerative diseases"

03

Course Management

Our teachers, made up of experts in Neurological Physiotherapy, are well known in the profession and are professionals with years of teaching experience who have come together to help you boost your career. To this end, they have developed this program with recent updates in the field that will allow you to train and increase your skills in this sector.



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*Learn from the best professionals and
become a successful professional yourself”*

Management



Mr. Pérez Redondo, José María

- Physiotherapist specialized in Neurology and Neurosurgery in acute and critical patients
- Degree in Physiotherapy from the European University of Madrid
- Diploma in Physiotherapy from the School of Physiotherapy, Podiatry and Nursing at the Complutense University of Madrid
- 5 levels of the Postgraduate Specialization Course in Osteopathic Manual Physical Therapy, organized by the Department of Human Anatomy and Embryology, Faculty of Medicine, University of Alcalá de Henares
- Course on Radiology and Imaging Techniques for Physiotherapists and Occupational Therapists, organized by Fuenlabrada Hospital
- Neurodynamic Mobilization Course for Physiotherapists, organized by Fuenlabrada Hospital
- Functional Re-education Course in Parkinson's Disease, organized by the Federation of Health and Socio-sanitary Sectors of Worker's Commissions
- President of the Scientific Committee for the II National Conference on Myofascial Pain and Dry Needling

Professors

Mr. Rodríguez López, Carlos

- ♦ CEO of Mbody
- ♦ PhD in Specialization in the Mechanical Influence of the Peripheral Nerve on Brain Damage by the University of A Coruña
- ♦ Master's Degree in Dependency Management and Research
- ♦ Expert in Neurological Physiotherapy (UCD)
- ♦ Degree in Physiotherapy from UCD

Mr. Almirón Taborga, Marcos

- ♦ Coordinator of Integral Treatment in Sinapse Cantabria
- ♦ Head of Development at Mbody
- ♦ Teacher in the Degree in Physiotherapy in the University Schools Gimbernat Cantabria
- ♦ Graduate in Physiotherapy at the University School of Physiotherapy Gimbernat



Ms. Casanueva Pérez, Carolina

- ◆ Physiotherapist in the Neonatology and Pediatrics Unit in Hospitalization, and physiotherapist in the pediatric area at the San Carlos Clinical Hospital. Since 2005
- ◆ Physiotherapist. UCM
- ◆ CO in Osteopathy EOM
- ◆ Expert Certificate in Sport Physiotherapy UCM.
- ◆ Expert Certificate in Advanced Manual Therapy UCM
- ◆ Expert Certificate in Neurological Physiotherapy UCM
- ◆ Co-author of physical therapy protocols HCSC

Ms. Hermida Rama, Josefa

- ◆ Physiotherapist in the Rehabilitation Department, San Carlos Clinical Hospital, Madrid
- ◆ Diploma in Physiotherapy from the Complutense University of Madrid
- ◆ Graduate in Physiotherapy from the Faculty of Nursing, Physiotherapy and Podiatry at the Complutense University of Madrid
- ◆ Associate Professor of Clinical Stays of the Faculty of Nursing, Physiotherapy and Podiatry
- ◆ Expert in Neurological Physiotherapy, Madrid. University School of Nursing, Physiotherapy and Podology UCM
- ◆ Advanced Course Basic Study for Arm and Hand Function Recovery in Adult Neurological Patients by the Bobath Concept

Ms. Jiménez Cubo, Alba

- ◆ Physiotherapist in Neurorehabilitation at Step by Step Foundation
- ◆ Graduate in Physiotherapy at the University School of Physiotherapy Gimbernat
- ◆ Master's Degree in Neurological Stimulation.
- ◆ Official Master's Degree in Nervous System Sciences: Neurorehabilitation

04

Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of the study in daily practice, aware of the relevance of the current importance of quality education in the field of neurological physiotherapy, and committed to quality teaching through new educational technologies.





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We have the most complete and up-to-date scientific program on the market. We want to put the best education within your reach”

Module 1. Introduction to Neurodegenerative Diseases

- 1.1. Introduction
 - 1.1.1. Definition
 - 1.1.2. Classification
 - 1.1.3. Epidemiology
- 1.2. Clinical/Symptoms
 - 1.2.1. Symptoms
 - 1.2.2. Signs
- 1.3. Diagnostic Imaging
 - 1.3.1. Structural
 - 1.3.2. Functional Criteria
- 1.4. Neurological Assessment Scales
- 1.5. Neurological Examination
 - 1.5.1. Cranial Nerves, Pathological Reflexes
 - 1.5.2. Tone, Sensitivity, Osteotendinous Reflexes
 - 1.5.3. Manipulation, Coordination, Balance and Gait
- 1.6. Digital Physiotherapy and Reporting
 - 1.6.1. Telephysiotherapy
 - 1.6.2. Scheduled Consultation via ICT
 - 1.6.3. Writing a Physiotherapy Report
 - 1.6.4. Interpretation of Medical Information
- 1.7. Multidisciplinary Team
 - 1.7.1. Doctor
 - 1.7.2. Occupational Therapist
 - 1.7.3. Speech therapist
 - 1.7.4. Neuropsychologist
 - 1.7.5. Orthopedic Technician
- 1.8. Physiotherapy Approach
 - 1.8.1. Movement Facilitation Techniques
 - 1.8.2. Neurodynamics
 - 1.8.3. Hydrotherapy
 - 1.8.4. Therapeutic Exercise
 - 1.8.5. Robotics and Virtual Reality

- 1.9. Patient Complications
 - 1.9.1. Pain
 - 1.9.2. Cardio-Respiratory System
 - 1.9.3. Musculoskeletal Complications
- 1.10. Patient, Caregiver and Family Information and Counseling

Module 2. Neurodegenerative Diseases in Childhood

- 2.1. Introduction
 - 2.1.1. Classification
 - 2.1.2. Epidemiology
- 2.2. Neurodevelopment
 - 2.2.1. Emergencies
 - 2.2.2. Infantile
- 2.3. Early Prevention and Detection
- 2.4. White Matter Diseases
- 2.5. Gray Matter Diseases
- 2.6. Other Progressive Neurological Diseases
- 2.7. Assessment
 - 2.7.1. Clinical manifestations
 - 2.7.2. Neurological Examination
- 2.8. Physiotherapeutic Treatments
 - 2.8.1. Physiotherapeutic Interventions
 - 2.8.2. Support Products
- 2.9. Treatment
 - 2.9.1. Doctor
 - 2.9.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 2.10. Readaptation
 - 2.10.1. Social Aspects
 - 2.10.2. Family Care



Module 3. Neoplasms or Nervous System Tumors

- 3.1. Introduction
 - 3.1.1. Anatomy
 - 3.1.2. Physiology
 - 3.1.3. Classification
- 3.2. Epidemiology
- 3.3. Etiology
 - 3.3.1. Transmission Mode
 - 3.3.2. Frequency
 - 3.3.3. Age of Onset
- 3.4. Evolution
- 3.5. Prognostic Factors
- 3.6. Evaluation/Diagnosis
 - 3.6.1. Clinical Manifestations
 - 3.6.2. Diagnostic Imaging
 - 3.6.3. Neurological Examination
 - 3.6.4. Neurological Assessment Scales
- 3.7. Treatment
 - 3.7.1. Medical-surgical Treatments
 - 3.7.2. Physiotherapy
 - 3.7.3. Occupational Therapy, Speech Therapy and Neuropsychology
- 3.8. Orthopedics
 - 3.8.1. Support Products
 - 3.8.2. Orthoses
- 3.9. Readaptation
 - 3.9.1. Social Aspects/Support
 - 3.9.2. Comprehensive Care for Patients, Families and Caregivers
- 3.10. Early Prevention and Detection

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





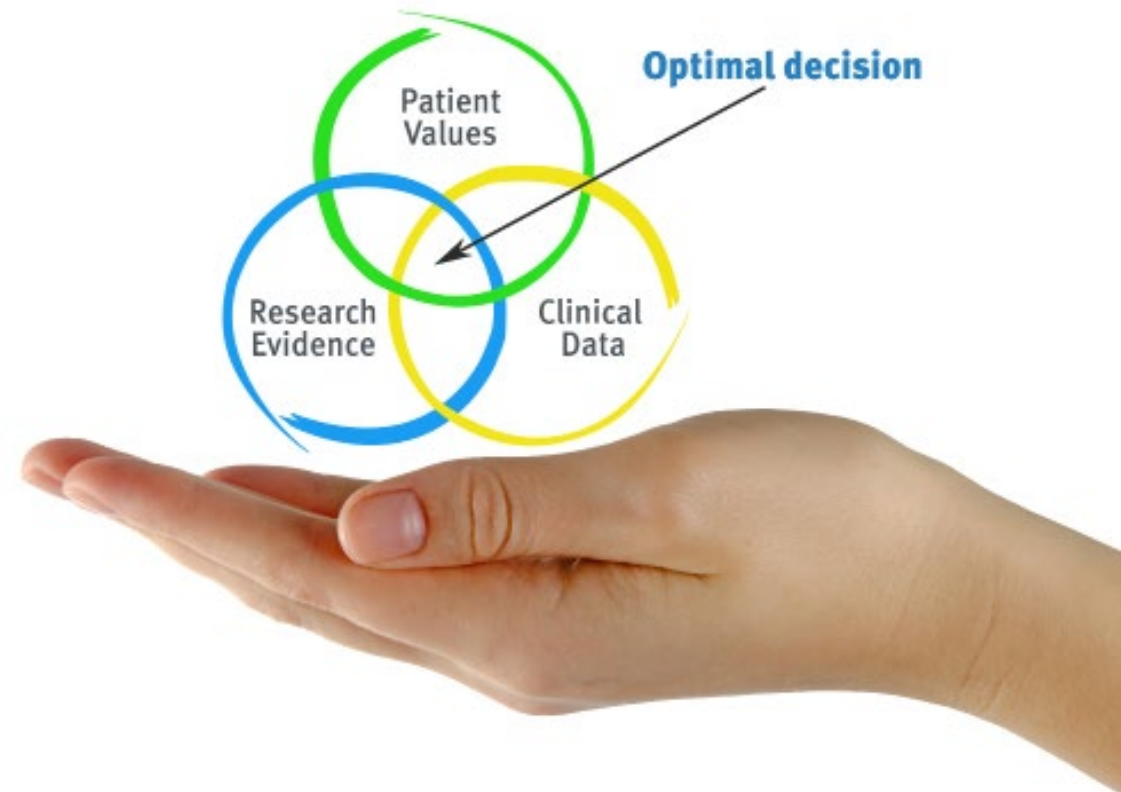
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions of professional physiotherapy practice.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.



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

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

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Physiotherapy Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



Interactive Summaries

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

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



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06 Certificate

The Postgraduate Diploma in Neurological Physiotherapy in Neurodegenerative Diseases, in Childhood and Tumors 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 Diploma in Neurodegenerative Diseases, in Childhood and Tumors** 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by TECH Technological University will reflect the qualification obtained in the Professional Master's Degree, and will meet the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma Neurological Physiotherapy in Neurodegenerative Diseases, in Childhood and Tumors**

Official N° of Hours: **450 h.**



*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.

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



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