

# Postgraduate Certificate

## Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies



## Postgraduate Certificate Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies

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

Website: [www.techtute.com/us/physiotherapy/postgraduate-certificate/neurological-physiotherapy-neuromuscular-diseases-polyneuropathies](http://www.techtute.com/us/physiotherapy/postgraduate-certificate/neurological-physiotherapy-neuromuscular-diseases-polyneuropathies)

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# 01

# Introduction

Mobility problems caused by Neuromuscular Diseases and Polyneuropathies require a rehabilitation process that promotes the patient's physical recovery or, at least, aims to prevent further loss of independence. Therefore, the work of physiotherapists is highly important in this field, since they are professionals who are trained to apply the appropriate therapeutic techniques. If a student wants to specialize in the care of these patients, don't think twice and train at TECH.





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*We give you the opportunity to train in Neuromuscular Diseases and Polyneuropathies to apply the most appropriate physiotherapy techniques to each case”*

There are multiple neurological diseases that can cause reduced mobility. As a result, they should train and perform a series of rehabilitation exercises that allow them to continue with their daily life or, at least, prevent them from reaching the point where they depend on another person or a mechanical support to move. The work carried out by physiotherapists is crucial, as they possess the knowledge required to offer the most appropriate therapy that is in line with patient needs. To enhance the training of these professionals, TECH has designed this Postgraduate Certificate, specifically on Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies, which offers a unique opportunity to train with leading specialists in this field.

The program will address the affectations of each of the constituents of the motor unit, be it the peripheral motor neuron, the nerve, the neuromuscular junction or the muscle fiber itself. The various "rare diseases" will be described by making a differential diagnosis of these syndromes (acquired or genetic), either by a degeneration of the motor neurons of the spinal cord, brain stem or motor cortex. The distribution of the lesions and prognosis will also be studied depending on the clinical manifestations, either by involvement of the lower motor neuron, the upper motor neuron or both. Therapeutic objectives will be proposed to prolong functional capacity, promote independence and offer the patient the highest quality of life throughout the care process. And finally, physiotherapists will learn to apply innovative treatments in each of the pathological entities: crenotherapy, hydrokinesitherapy, relaxation techniques, etc. Know surgical and orthotic treatments to prevent or correct deformities.

The teaching staff of this Postgraduate Certificate is composed of specialists in the areas of intervention of each pathology, from prestigious health centers and universities, sensitized to continuous quality training based on scientific evidence to provide a holistic approach to the patient with neurodegenerative disease, and committed to quality teaching through new educational technologies. Learning is done through real cases, guided by an expert, and continuous evaluation through assessment and self-assessment activities and exercises.

In short, TECH 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. Therefore, TECH presents this program with comprehensive content that will help them become elite neurological physiotherapists.

This **Postgraduate Certificate in Neuromuscular Diseases and Polyneuropathies** 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 decision-making
- ◆ 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 Certificate and improve your skills in therapies for people with degenerative diseases"*

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*This Postgraduate Certificate, is the best investment you can make in the selection 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”*

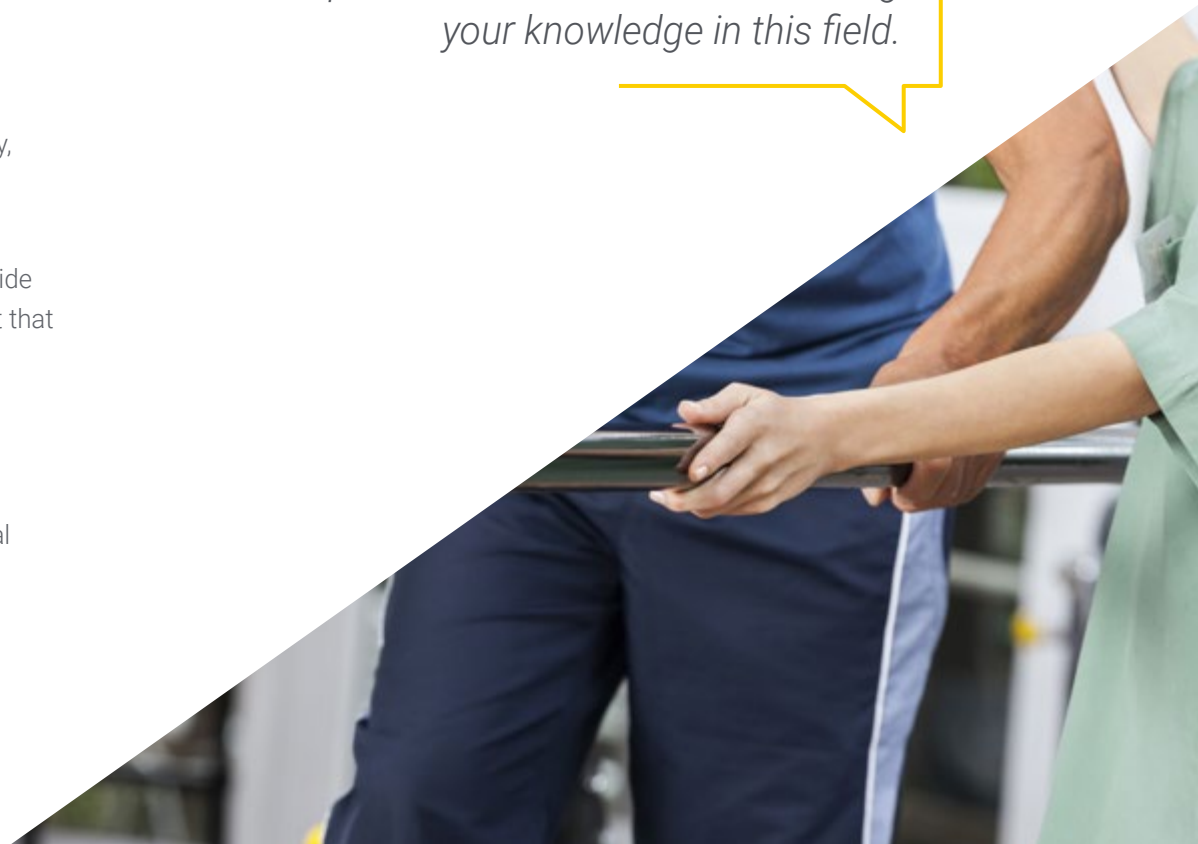
It includes, in its teaching staff, professionals belonging to the field of physiotherapy, who pour into this training the experience of their work, in addition to recognized specialists of reference societies and prestigious universities.

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 training 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 the program. For this purpose, the professional will have the help of an innovative interactive video system made by renowned experts in Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies, and with great experience.

*This Postgraduate Certificate, allows training in simulated environments, which provide immersive learning programmed to train for real situations.*

*A 100% online program 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

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- ◆ 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

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- ◆ Delve deeper into the anatomical and functional bases of the nervous system involved
- ◆ Identify the various symptoms and clinical manifestations of the different motor neuron affectations
- ◆ Describe the different surgical and orthotic treatments to prevent or correct deformities
- ◆ Apply innovative treatments in each of the pathologies through practical examples: crenotherapy, hydrokinesitherapy, relaxation techniques, etc.
- ◆ Describe the work strategies used in aquatic therapy for the re-education of gait and daily activities



*The specific training in Neurological Physiotherapy will allow to achieve 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 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 40 hours
- Course on Functional Re-education in Parkinson's Disease, organized by the Federation of Health and Social and Health Sectors of Comisiones Obreras 100 hours
- President of the Scientific Committee for the II National Conference on Myofascial Pain and Dry Needling



## Professors

### Ms. Buiza Durán, Marta

- ◆ Physiotherapist in Private Clinic Physiotherapy Alcobenda
- ◆ Diploma in Physiotherapy from San Pablo CEU University
- ◆ Master's Degree in Neurological Physiotherapy from the European University of Madrid
- ◆ Postgraduate Degree in Temporomandibular Articulation Dysfunctions from the Castilla La Mancha University

### Ms. Teruel Hernández, Esther del Carmen

- ◆ Specialist in neurological physiotherapy of the child and the adult
- ◆ Physiotherapist at the Neurocamps physiotherapy centre, Murcia
- ◆ Grade in Physiotherapy from the University of Murcia
- ◆ PhD in physiotherapy in the line of health, disability, dependence and well-being by the University of Murcia

# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of training 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 in the market. We want to provide you with the best training"*

## Module 1. Neuromuscular Diseases and Polyneuropathies

- 1.1. Introduction
  - 1.1.1. Anatomy
  - 1.1.2. Physiology
  - 1.1.3. Classification
- 1.2. Epidemiology
- 1.3. Etiology
  - 1.3.1. Transmission Mode
  - 1.3.2. Frequency
  - 1.3.3. Age of Onset
- 1.4. Evolution
- 1.5. Prognostic Factors
- 1.6. Evaluation/Diagnosis
  - 1.6.1. Clinical Manifestations
  - 1.6.2. Diagnostic Imaging
  - 1.6.3. Neurological Examination
  - 1.6.4. Neurological Assessment Scales
- 1.7. Treatment
  - 1.7.1. Medical/Surgical Treatments
  - 1.7.2. Physiotherapy
  - 1.7.3. Occupational Therapy, Speech Therapy and Neuropsychology
- 1.8. Orthopedics
  - 1.8.1. Support Products
  - 1.8.2. Orthoses
- 1.9. Readaptation
  - 1.9.1. Social Aspects/Support
  - 1.9.2. Comprehensive Care for Patients, Families and Caregivers
- 1.10. Early Prevention and Detection





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*A unique, key, and decisive training experience to boost your professional development”*

# 05

# Methodology

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

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





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

## At TECH we use the Case Method

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

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



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

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

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

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



## Relearning Methodology

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

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



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



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

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

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

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

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



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



#### Study Material

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

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



#### Physiotherapy Techniques and Procedures on Video

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



#### Interactive Summaries

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

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



#### Additional Reading

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





#### Expert-Led Case Studies and Case Analysis

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



#### Testing & Retesting

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



#### Classes

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



#### Quick Action Guides

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



# 06 Certificate

The Postgraduate Certificate in Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies 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 Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies** 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 Neurological Physiotherapy in Neuromuscular Diseases and Polyneuropathies**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



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Neurological Physiotherapy  
in Neuromuscular Diseases  
and Polyneuropathies

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- » Schedule: at your own pace
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