

# Postgraduate Certificate

## Neurological Physiotherapy in Amyotrophic Lateral Sclerosis





## Postgraduate Certificate Neurological Physiotherapy in Amyotrophic Lateral Sclerosis

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

Website: [www.techtute.com/in/physiotherapy/postgraduate-certificate/neurological-physiotherapy-amyotrophic-lateral-sclerosis](http://www.techtute.com/in/physiotherapy/postgraduate-certificate/neurological-physiotherapy-amyotrophic-lateral-sclerosis)

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# 01

# Introduction

The multiple manifestations that can cause neurodegenerative diseases make it essential for physiotherapists to obtain further training in this field that allows them to apply the latest techniques in the treatment of their patients. To facilitate their training, TECH has designed this specific program on Neurological Physiotherapy in Amyotrophic Lateral Sclerosis, which has the best teaching team in the current academic panorama.



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*Our academic program will allow you to learn about the particularities of ALS and offer a more personalized treatment to these patients”*

Physiotherapists who work with people with amyotrophic lateral sclerosis (ALS) should be highly specialized, which will allow them to treat such patients with full guarantees of success, improving, as far as possible, their physical abilities.

In this way, this Postgraduate Certificate will describe this disease, explaining the symptoms and signs of involvement of the first and second motor neuron so that the physiotherapist can identify them. Once these concepts have been covered, the symptoms in the different phases of the disease will be analyzed: weakness, fasciculations, respiratory diseases, spasticity, pain, dysphagia, dysarthria, etc. And all this so that the physiotherapist is able to apply specialized treatment to each of these clinical manifestations, not only to the treatment of neurological damage, but also the techniques of respiratory physiotherapy and the approach in the treatment of pain. To this end, training and practical tools will be included to achieve caregiver involvement and education.

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 offer 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 Neurological Physiotherapy in Amyotrophic Lateral Sclerosis** 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 Certificate and improve your skills in therapies for people with degenerative diseases"*

“

*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 academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Neurological Physiotherapy in Amyotrophic Lateral Sclerosis with extensive 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



*The specific training in Neurological Physiotherapy will allow to achieve great advances in people with degenerative diseases"*





## 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 according to the area of involvement
- ◆ Learn to identify and address swallowing disorders, respiratory insufficiency, urinary incontinence, etc.
- ◆ Detect pain and discover the different ways to approach it
- ◆ Develop working methods and new trends in physiotherapy for patients with this disease, through case studies

# 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. González Villarejo, Lara

- ◆ Neurological physiotherapist with more than 16 years of experience
- ◆ Physiotherapist and trainer at CRENE Charo Ariza Ltd
- ◆ Associate Professor at the University Francisco of Vitoria
- ◆ Physiotherapist at ASISPA, Euroresidencias Ltd., Amyotrophic Lateral Sclerosis Association of Madrid, Novo Fisio and Mas L'Espelidou
- ◆ Diploma in Psychomotricity from Childhood to Elderly by the International School of Psychomotricity of Madrid
- ◆ Expert in Osteopathy from the EOM- University of Alcalá de Henares

# 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. Amyotrophic Lateral Sclerosis

- 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





“*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 Amyotrophic Lateral Sclerosis guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Neurological Physiotherapy in Amyotrophic Lateral Sclerosis** 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 Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the **Postgraduate Certificate**, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Neurological Physiotherapy in Amyotrophic Lateral Sclerosis**

Official N° of Hours: **150 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.

future  
health 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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