

# Professional Master's Degree Neurological Physiotherapy in Degenerative Diseases





## Professional Master's Degree Neurological Physiotherapy in Degenerative Diseases

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/in/physiotherapy/professional-master-degree/master-neurological-physiotherapy-degenerative-diseases](http://www.techtitute.com/in/physiotherapy/professional-master-degree/master-neurological-physiotherapy-degenerative-diseases)

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# 01

# Introduction

This academic program in Neurological Physiotherapy in Degenerative Diseases created by TECH aims to provide physiotherapists with an essential arsenal of knowledge based on current scientific evidence, allowing them to understand the anatomy of the nervous system, the pathophysiology and the complete approach to treatment when faced with any of the consequences of injuries that result in these diseases, thereby achieving substantial patient improvement by applying the latest techniques.







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*Neurodegenerative diseases require specific treatments in the field of physiotherapy that allow patients to regain mobility"*

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. Physiotherapists are a fundamental component in any multidisciplinary team, because these diseases cause alterations in various body activities, such as movement, balance, breathing, speech or heart functions.

That is why it is essential for physiotherapists to specialize in the treatment of these diseases in order to help those affected to improve symptoms, relieve pain, improve functional capacity, slow down the disabling process of the disease and stimulate independence and physical functions, since physiotherapy has proven to be effective in alleviating the consequences of neurodegenerative diseases.

To achieve this objective of providing these professionals with up-to-date education, TECH Technological University has designed this comprehensive Professional Master's Degree, which has a teaching staff composed of specialists in the areas of intervention of each pathology, from health centers and prestigious universities, sensitized to quality continuing education based on scientific evidence to provide a holistic approach to the patient with neurodegenerative disease, and committed to quality teaching through new educational technologies.

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 a rich content that will help you reach the elite of neurological physiotherapy.

This **Professional Master's Degree in Neurological Physiotherapy in Degenerative Diseases** contains the most complete and up-to-date scientific program on the market.

The most important features include:

- ♦ The development of numerous 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 this high-level Professional Master's Degree and improve your skills in therapies for people with degenerative diseases"*

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*This Professional Master's Degree is the best investment you can make when selecting a refresher program for two reasons: in addition to updating your knowledge in Neurological Physiotherapy, you will obtain a qualification from the world's largest online university: TECH Technological University”*

It includes, in its teaching staff, professionals belonging to the field of physiotherapy, who contribute their vast work experience to this program, in addition to recognized specialists from leading 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 be assisted by an innovative interactive video system created by renowned and experienced experts in Neurological Physiotherapy in Degenerative Diseases.

*This Professional Master's Degree offers practice in simulated environments, which provides an immersive learning experience designed to train for real-life 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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### 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. Parkinson's Disease and Other Related Neurodegenerative Diseases (Progressive Supranuclear Palsy, Corticobasal Degeneration, Multiple Systemic Atrophy)

- ♦ Discover the anatomical and functional bases of the nervous system
- ♦ Identify the various symptoms and clinical manifestations according to the area of involvement Caused by Parkinson's disease and other related neurodegenerative diseases
- ♦ Train students with a more extensive knowledge of postural physiology, all through the use of new technologies
- ♦ Elaborate readaptation programs to effort, balance and coordination re-education through case studies
- ♦ Define and explain the use of different assistive devices for daily activities

### **Module 3. Multiple Sclerosis**

- ♦ Delve into the anatomical and functional basis of the nervous system involved in Multiple Sclerosis
- ♦ Identify the various symptoms and clinical manifestations according to the area of involvement in Multiple Sclerosis
- ♦ Acquire skills for the treatment of spasticity
- ♦ Train students in the analysis of movement, using explanatory videos
- ♦ Elaborate readaptation programs to effort, balance and coordination re-education through case studies

### **Module 4. Amyotrophic Lateral Sclerosis**

- ♦ Delve into the anatomical and functional basis of the nervous system involved in Amyotrophic Lateral Sclerosis
- ♦ Identify the various symptoms and clinical manifestations according to affected region in Amyotrophic Lateral Sclerosis
- ♦ 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

### **Module 5. Huntington's Disease**

- ♦ Delve into the anatomical and functional basis of the nervous system involved in Huntington's disease
- ♦ Identify the various symptoms and clinical manifestations according to the area of involvement in Huntington's disease

- ♦ Recognize the physiotherapeutic treatment implications of the different cognitive domains that are either injured or intact in movement impairment
- ♦ Develop working methods and new trends in physiotherapy for patients with this disease, through case studies

### **Module 6. Neuromuscular Diseases and Polyneuropathies**

- ♦ Delve into the anatomical and functional bases of the nervous system involved in the disease
- ♦ 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

### **Module 7. Alzheimer's Disease and other Neurodegenerative Dementias: Frontotemporal Dementia, Lewy Body Dementia, Vascular Dementia**

- ♦ Understand in depth the relationship between cortical atrophy in different areas (frontal, temporal, parietal and occipital) with aphasia, apraxias and agnosias
- ♦ Identify the various symptoms and clinical manifestations according to the area of involvement caused by Alzheimer's disease and other neurodegenerative dementias
- ♦ Delve deeper into and differentiate the different psychiatric manifestations
- ♦ Define strategies to access disoriented and/or disconnected patients
- ♦ Describe strategies to promote caregiver treatment adherence
- ♦ Develop the role of physical therapists in managing and treating dementia patients





### **Module 8. Cerebellar Degenerative Diseases: Hereditary Ataxias: Friedreich's Ataxia and Machado-Joseph Ataxia**

- ◆ Conceptualize the functions of the cerebellum and its main clinical manifestation: ataxia
- ◆ Design therapeutic exercise programs to improve coordination and balance
- ◆ Design the necessary strategies for autonomous gait acquisition
- ◆ Apply the knowledge of postural physiology, using explanatory videos and through practice

### **Module 9. 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 10. 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)

# 03 Skills

After passing the assessments of the Professional Master's Degree in Neurological Physiotherapy in Degenerative Diseases, the professional will have acquired the necessary skills for a quality and up-to-date practice based on the most innovative teaching methodology.





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*This program will help you acquire the skills you need to excel in your daily work”*





## General Skill

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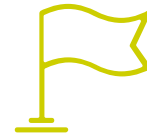
- Apply the most advanced physiotherapy techniques in patients with neurodegenerative diseases and improve their quality of life substantially

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*Enhance your skills with our high-quality Professional Master's Degree and give your career a boost"*







## Specific Skills

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- ◆ Update your knowledge and increase your therapeutic tools to address patient injuries and treatments
- ◆ Understand nervous system anatomy and pathophysiology
- ◆ Thoroughly know the neurodegenerative diseases you may treat in your practice
- ◆ Perform patient evaluations and offer the most appropriate techniques to advance their rehabilitation
- ◆ Successfully readapt the body in neurodegenerative disease patients
- ◆ Locate patient pain points and apply the most appropriate therapies
- ◆ Apply the most appropriate treatments for children with neurodegenerative diseases
- ◆ Treat patients through digital physiotherapy using telecare tools

# 04 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 created this Professional Master's Degree with the latest developments in the field that will allow you to train and enhance your skills in this sector.





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*Learn from leading 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

### 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

### 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



## Professors

### 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

### 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. 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

### Ms. Sánchez Palomares, Raquel

- ◆ Director and Physiotherapist at Neurofis Rehabilitation Center
- ◆ Diploma in Physiotherapy at Pontificia de Comillas University

### Ms. Teruel Hernández, Esther

- ◆ Physiotherapist at the Specialized Therapeutic Center for Alzheimer's and other Dementias
- ◆ Tutor of external practices of the Physiotherapy Degree at the Catholic University of Murcia
- ◆ Tutor of external practices of the Master's Degree in Neurological Physiotherapy of the University of Murcia
- ◆ Degree in Physiotherapy at the University of Murcia
- ◆ Master's Degree in neurological physiotherapy of children and adults at the University of Murcia
- ◆ Doctoral student in physiotherapy: "Efficacy of non-invasive neuromodulation through NESA and therapeutic exercise to improve sleep disturbances in dementia" by the University of Murcia
- ◆ University expert course on non-invasive neuromodulation NESA

# 05

# 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 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
  - 1.2.3. Diagnostic Imaging (Structural and Functional)
- 1.3. Quality of Life Rating Scales
  - 1.3.1. Psychosocial Impact of Neurodegenerative Diseases and Quality of Life
  - 1.3.2. Scales
- 1.4. Neurological Examination
  - 1.4.1. Tone, Sensitivity, Osteotendinous Reflexes and Pathological Reflexes
  - 1.4.2. Examination: Trunk, Upper Limb (Supporting, Reaching and Handling Function), Lower Limb (Static and Dynamic Standing)
  - 1.4.3. Coordination, Balance and Gait
  - 1.4.4. Cognitive Disorders
  - 1.4.5. Cranial Nerves
- 1.5. Multidisciplinary team
  - 1.5.1. Models of Teamwork in Neurorehabilitation
  - 1.5.2. Neurorehabilitation Team Components
- 1.6. Physiotherapy Approach
  - 1.6.1. Movement Facilitation Techniques
  - 1.6.2. Therapeutic Exercise
  - 1.6.3. Applied Neurodynamics
- 1.7. Other Methods
  - 1.7.1. Hydrotherapy
  - 1.7.2. Animal-Assisted Therapy
  - 1.7.3. Robotics and Virtual Reality





- 1.8. Patient Complications
  - 1.8.1. Pain
  - 1.8.2. Cardio-Respiratory System Complications
  - 1.8.3. Musculoskeletal Complications
  - 1.8.4. Lymphatic Edema and Pressure Ulcers
  - 1.8.5. Others
- 1.9. Patient, Caregiver and Family Information and Counseling
- 1.10. Digital Physiotherapy and Reporting
  - 1.10.1. Telephysiotherapy
  - 1.10.2. Scheduled Consultation via ICT
  - 1.10.3. Writing a Physiotherapy Report
  - 1.10.4. Interpretation of Medical Information

## **Module 2.** Parkinson's Disease and Other Related Neurodegenerative Diseases (Progressive Supranuclear Palsy, Corticobasal Degeneration, Multiple Systemic Atrophy)

- 2.1. Introduction
  - 2.1.1. Anatomy
  - 2.1.2. Physiology
  - 2.1.3. Classification
  - 2.1.4. Epidemiology
- 2.2. Etiology
  - 2.2.1. Transmission Mode
  - 2.2.2. Frequency
  - 2.2.3. Age of Onset
- 2.3. Progression/Prognostic Factors
- 2.4. Diagnosis
  - 2.4.1. Clinical Manifestations
  - 2.4.2. Diagnostic Imaging

- 2.5. Assessment
  - 2.5.1. Neurological Examination
  - 2.5.2. Neurological Assessment Scales
- 2.6. Treatment
  - 2.6.1. Medical/Surgical Treatments
  - 2.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 2.7. Physiotherapy Treatment
- 2.8. Orthopedics
  - 2.8.1. Support Products
  - 2.8.2. Orthoses
- 2.9. Readaptation
  - 2.9.1. Social Aspects/Support
  - 2.9.2. Comprehensive Care for Patients, Families and Caregivers
- 2.10. Early Prevention and Detection

### Module 3. Multiple Sclerosis

- 3.1. Introduction
  - 3.1.1. Anatomy
  - 3.1.2. Physiology
  - 3.1.3. Classification
  - 3.1.4. Epidemiology
- 3.2. Etiology
  - 3.2.1. Transmission Mode
  - 3.2.2. Frequency
  - 3.2.3. Starting Age
- 3.3. Progression/Prognostic Factors
- 3.4. Diagnosis
  - 3.4.1. Clinical Manifestations
  - 3.4.2. Diagnostic Imaging
- 3.5. Assessment
  - 3.5.1. Neurological Examination
  - 3.5.2. Neurological Assessment Scales

- 3.6. Treatment
  - 3.6.1. Medical/Surgical Treatments
  - 3.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 3.7. Physiotherapy Treatment
- 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

### Module 4. Amyotrophic Lateral Sclerosis

- 4.1. Introduction
  - 4.1.1. Anatomy
  - 4.1.2. Physiology
  - 4.1.3. Classification
  - 4.1.4. Epidemiology
- 4.2. Etiology
  - 4.2.1. Transmission Mode
  - 4.2.2. Frequency
  - 4.2.3. Starting Age
- 4.3. Progression/Prognostic Factors
- 4.4. Diagnosis
  - 4.4.1. Clinical Manifestations
  - 4.4.2. Diagnostic Imaging
- 4.5. Assessment
  - 4.5.1. Neurological Examination
  - 4.5.2. Neurological Assessment Scales
- 4.6. Treatment
  - 4.6.1. Medical-surgical Treatments
  - 4.6.2. Occupational Therapy, Speech Therapy and Neuropsychology



- 4.7. Physiotherapy Treatment
- 4.8. Orthopedics
  - 4.8.1. Support Products
  - 4.8.2. Orthoses
- 4.9. Readaptation
  - 4.9.1. Social Aspects/Support
  - 4.9.2. Comprehensive Care for Patients, Families and Caregivers
- 4.10. Early Prevention and Detection

## Module 5. Huntington's Disease

- 5.1. Introduction
  - 5.1.1. Anatomy
  - 5.1.2. Physiology
  - 5.1.3. Classification
  - 5.1.4. Epidemiology
- 5.2. Etiology
  - 5.2.1. Transmission Mode
  - 5.2.2. Frequency
  - 5.2.3. Starting Age
- 5.3. Progression/Prognostic Factors
- 5.4. Diagnosis
  - 5.4.1. Clinical Manifestations
  - 5.4.2. Diagnostic Imaging
- 5.5. Assessment
  - 5.5.1. Neurological Examination
  - 5.5.2. Neurological Assessment Scales
- 5.6. Treatment
  - 5.6.1. Medical/Surgical Treatments
  - 5.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 5.7. Physiotherapy Treatment
- 5.8. Orthopedics
  - 5.8.1. Support Products
  - 5.8.2. Orthoses

- 5.9. Readaptation
  - 5.9.1. Social Aspects/Support
  - 5.9.2. Comprehensive Care for Patients, Families and Caregivers
- 5.10. Early Prevention and Detection

## Module 6. Neuromuscular Diseases and Polyneuropathies

- 6.1. Introduction
  - 6.1.1. Anatomy
  - 6.1.2. Physiology
  - 6.1.3. Classification
  - 6.1.4. Epidemiology
- 6.2. Etiology
  - 6.2.1. Transmission Mode
  - 6.2.2. Frequency
  - 6.2.3. Starting Age
- 6.3. Progression/Prognostic Factors
- 6.4. Diagnosis
  - 6.4.1. Clinical Manifestations
  - 6.4.2. Diagnostic Imaging
- 6.5. Assessment
  - 6.5.1. Neurological Examination
  - 6.5.2. Neurological Assessment Scales
- 6.6. Treatment
  - 6.6.1. Medical/Surgical Treatments
  - 6.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 6.7. Physiotherapy Treatment
- 6.8. Orthopedics
  - 6.8.1. Support Products
  - 6.8.2. Orthoses
- 6.9. Readaptation
  - 6.9.1. Social Aspects/Support
  - 6.9.2. Comprehensive Care for Patients, Families and Caregivers
- 6.10. Early Prevention and Detection

**Module 7.** Alzheimer's Disease and Other Neurodegenerative Dementias: Frontotemporal Dementia, Lewy Body Dementia, Vascular Dementia

- 7.1. Introduction
  - 7.1.1. Anatomy
  - 7.1.2. Physiology
  - 7.1.3. Classification
  - 7.1.4. Epidemiology
- 7.2. Etiology
  - 7.2.1. Transmission Mode
  - 7.2.2. Frequency
  - 7.2.3. Starting Age
- 7.3. Progression/Prognostic Factors
- 7.4. Diagnosis
  - 7.4.1. Clinical Manifestations
  - 7.4.2. Diagnostic Imaging
- 7.5. Assessment
  - 7.5.1. Neurological Examination
  - 7.5.2. Neurological Assessment Scales
- 7.6. Treatment
  - 7.6.1. Medical/Surgical Treatments
  - 7.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 7.7. Physiotherapy Treatment
- 7.8. Orthopedics
  - 7.8.1. Support Products
  - 7.8.2. Orthoses
- 7.9. Readaptation
  - 7.9.1. Social Aspects/Support
  - 7.9.2. Comprehensive Care for Patients, Families and Caregivers
- 7.10. Early Prevention and Detection

**Module 8.** Cerebellar Degenerative Diseases: Hereditary Ataxias: Friedreich's Ataxia and Machado-Joseph Ataxia

- 8.1. Introduction
  - 8.1.1. Anatomy
  - 8.1.2. Physiology
  - 8.1.3. Classification
  - 8.1.4. Epidemiology
- 8.2. Etiology
  - 8.2.1. Transmission Mode
  - 8.2.2. Frequency
  - 8.2.3. Starting Age
- 8.3. Progression/Prognostic Factors
- 8.4. Diagnosis
  - 8.4.1. Clinical Manifestations
  - 8.4.2. Diagnostic Imaging
- 8.5. Assessment
  - 8.5.1. Neurological Examination
  - 8.5.2. Neurological Assessment Scales
- 8.6. Treatment
  - 8.6.1. Medical/Surgical Treatments
  - 8.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
- 8.7. Physiotherapy Treatment
- 8.8. Orthopedics
  - 8.8.1. Support Products
  - 8.8.2. Orthoses
- 8.9. Readaptation
  - 8.9.1. Social Aspects/Support
  - 8.9.2. Comprehensive Care for Patients, Families and Caregivers
- 8.10. Early Prevention and Detection

**Module 9. Neurodegenerative Diseases in Childhood**

- 9.1. Introduction
  - 9.1.1. Neurodevelopment/Embryology
  - 9.1.2. Classification
- 9.2. Epidemiology
- 9.3. Etiology
  - 9.3.1. Frequency
  - 9.3.2. Age of Onset
- 9.4. Evolution
- 9.5. Prognostic Factors
- 9.6. Evaluation/Diagnosis
  - 9.6.1. Clinical Manifestations
  - 9.6.2. Neurological Examination
  - 9.6.3. Neurological Assessment Scales
- 9.7. Treatment
  - 9.7.1. Medical/Surgical Treatments
  - 9.7.2. Physiotherapy
  - 9.7.3. Occupational Therapy, Speech Therapy and Neuropsychology
- 9.8. Orthopedics
  - 9.8.1. Support Products
  - 9.8.2. Orthoses
- 9.9. Readaptation
  - 9.9.1. Social Aspects/Support
  - 9.9.2. Comprehensive Care for Patients, Families and Caregivers
- 9.10. Early Prevention and Detection

**Module 10. Neoplasms or Nervous System Tumors**

- 10.1. Introduction
  - 10.1.1. Anatomy
  - 10.1.2. Physiology
  - 10.1.3. Classification
  - 10.1.4. Epidemiology
- 10.2. Etiology
  - 10.2.1. Transmission Mode
  - 10.2.2. Frequency
  - 10.2.3. Starting Age
- 10.3. Progression/Prognostic Factors
- 10.4. Diagnosis
  - 10.4.1. Clinical Manifestations
  - 10.4.2. Diagnostic Imaging
- 10.5. Assessment
  - 10.5.1. Neurological Examination
  - 10.5.2. Neurological Assessment Scales
- 10.6. Treatment
  - 10.6.1. Medical-surgical Treatments
  - 10.6.2. Occupational Therapy, Speech Therapy and Neuropsychology
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- 10.8. Orthopedics
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  - 10.8.2. Orthoses
- 10.9. Readaptation
  - 10.9.1. Social Aspects/Support
  - 10.9.2. Comprehensive Care for Patients, Families and Caregivers
- 10.10. Early Prevention and Detection



# 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. 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.*

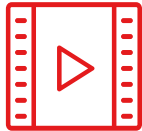
In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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

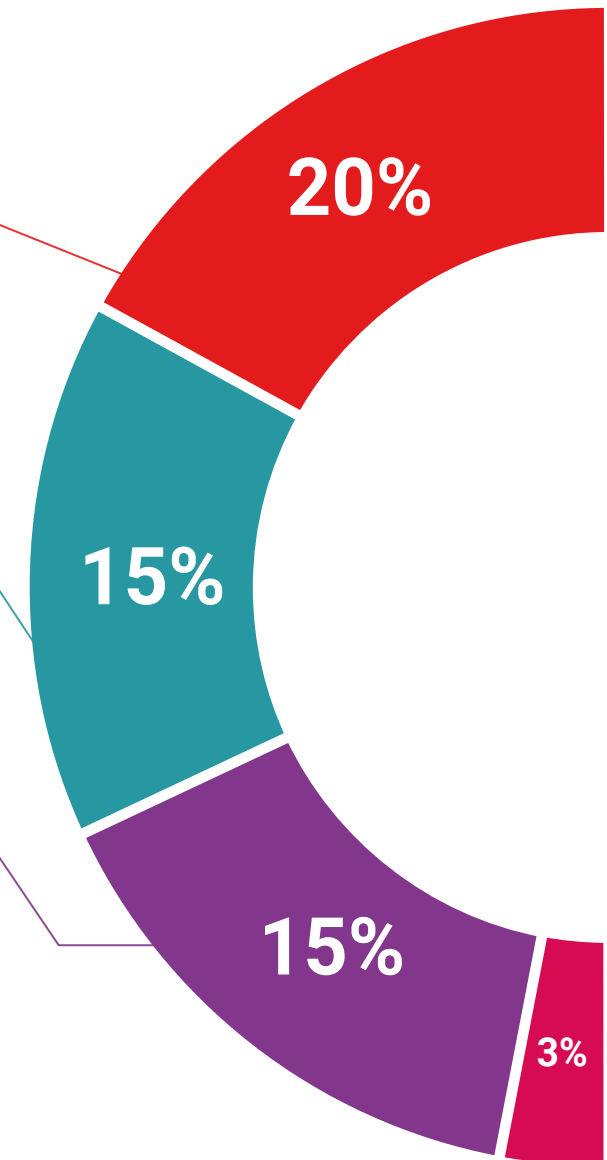
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

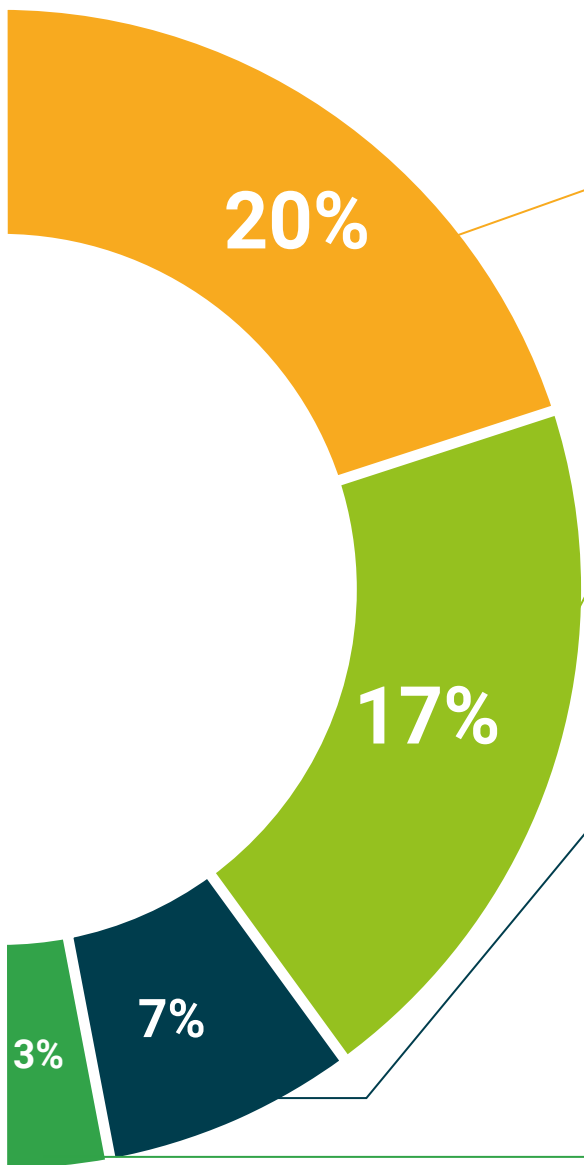


#### Additional Reading

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.



# 07 Certificate

The Professional Master's Degree in Neurological Physiotherapy in Degenerative Diseases guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree 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”*

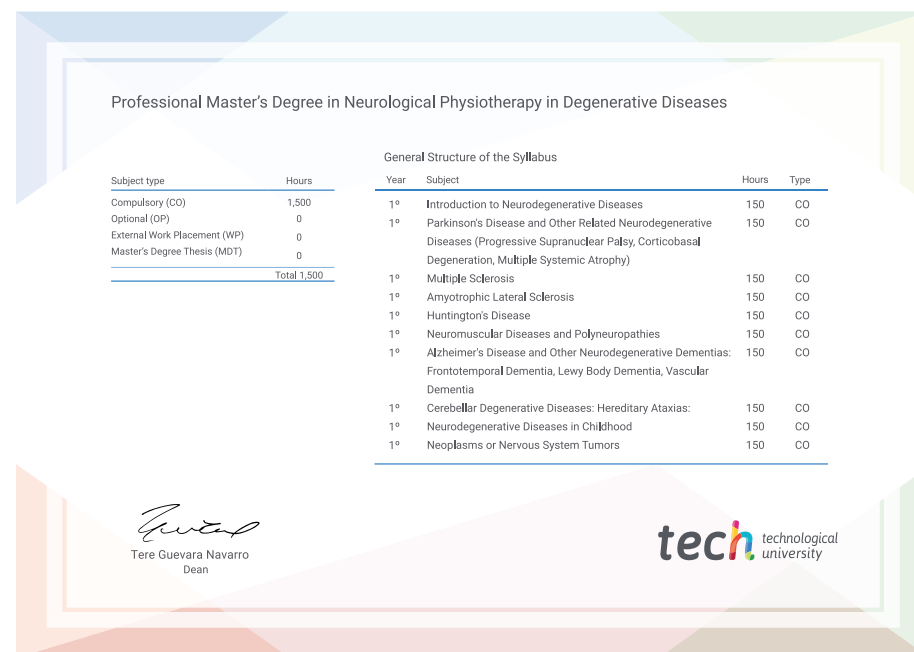
This **Professional Master's Degree in Neurological Physiotherapy in Degenerative Diseases** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** 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: **Professional Master's Degree in Neurological Physiotherapy in Degenerative Diseases**

Official N° of Hours: **1,500 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

**tech** technological university

personalized service innovation

knowledge present quality

Neurological Physiotherapy  
in Degenerative Diseases

development language

virtual classroom

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree

## Neurological Physiotherapy in Degenerative Diseases