



## Professional Master's Degree

Neurological Physiotherapy in Degenerative Diseases

» Modality: online

» Duration: 12 months

» Certificate: TECH Global University

» Credits: 60 ECTS

» Schedule: at your own pace

» Exams: online

We bsite: www.techtitute.com/us/physiotherapy/professional-master-degree/master-neurological-physiotherapy-degenerative-diseases

# Index

01		02			
Introduction		Objectives			
	p. 4		p. 8		
03		04		05	
Skills		Course Management		Structure and Content	
	p. 14		p. 18		p. 24
		06		07	
		Methodology		Certificate	
			p. 32		p. 40



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.



### tech 06 | 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. 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 Global 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 Global 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 Global 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 highlevel Professional Master's Degree and improve your skills in therapies for people with degenerative diseases"



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 Global 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.







### tech 10 | Objectives



### **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



The specific training in Neurological Physiotherapy will allow to achieve great advances in people with Degenerative Diseases"







### **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. 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

### tech 12 | Objectives

### 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)



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.



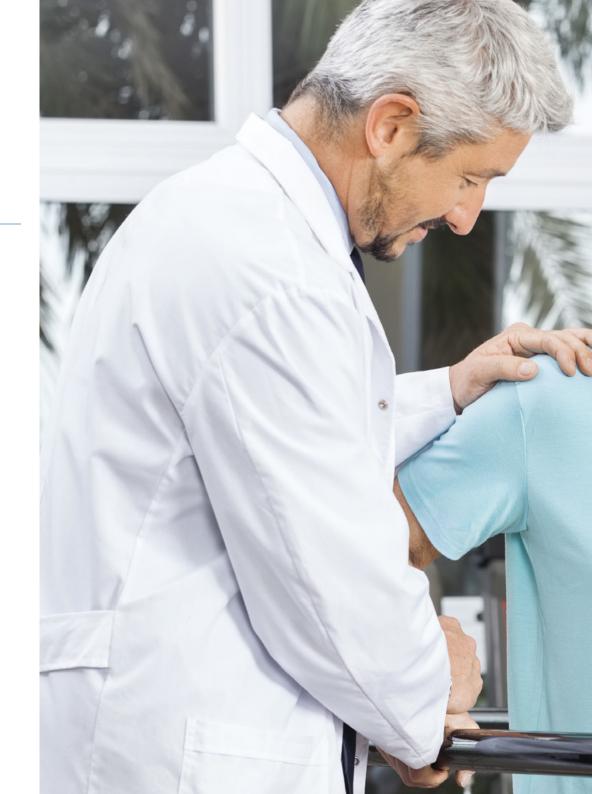


### General Skill

• Apply the most advanced physiotherapy techniques in patients with neurodegenerative diseasesand improve their quality of life substantially



Enhance your skills with our highquality Professional Master's Degree and give your career a boost"







### **Specific Skills**

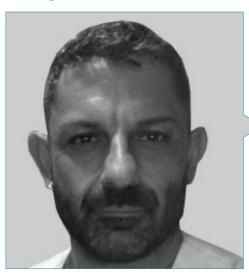
- Update your knowledge and increase your therapeutic tools to address patient injuries and treatments
- Understand nervous system anatomy and pathophysiology
- Thoroughly know the neurodegenerative diseases you may treat in your practice
- Perform patient evaluations and offer the most appropriate techniques 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





### tech 20 | Course Management

### 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 Hospita
- 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**

#### Dr. Palacios, Sandra

- Physiotherapist at the Provincial Rehabilitation Institute of the General University Hospital Gregorio Marañón
- Specialist in Neuro and Form: Neurological Rehabilitation of the Adult Patient.
- · Doctor in Health, Disability, Dependence and Welfare by the University of León
- Degree in Physiotherapy from the University of León
- Master's Degree in Neurological Physiotherapy for the Adult Patient from the European University of Madrid
- Advanced Program of the Bobath Concept, Recognition and Treatment of adults with Neurological Disorders

#### Mr. Navarro Quirós, Javier

- Private Physiotherapist Specialist in Neurology
- Physiotherapist in MEB-Habilitation
- Leisure and Free Time Monitor at Natuaventura
- Physiotherapist at the Premium Rehabilitation Medical Center in Madrid
- Physiotherapist at Ecrin Terapias
- Degree in Physiotherapy from the European University of Madrid
- Degree in Physical Activity and Sports Sciences from the European University of Madrid
- Master's Degree in Neurological Physiotherapy for the Adult Patient from the European University of Madrid
- · Osteopathy at the School of Osteopathy of Madrid

#### Ms. Buiza Durán, Marta

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

#### 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

### tech 22 | Course Management

### Ms. López Moreno, Beatriz

- Physiotherapist at the Parkinson's Association of Toledo
- Physiotherapist at Fisio&Med Medical Center
- Physiotherapist Assistant at Villanazules Hotel Hípica Spa
- Pilates Instructor at Mat-Fitness and Aerobic Toledo
- Degree in Physiotherapy by the University of Castilla-La Mancha
- Specialist in Conservative and Invasive Physical Therapy of Myofascial Pain Syndrome and Fibromyalgia
- Certificate of Diagnosis and Conservative Treatment and Superficial Dry Needling of Myofascial Pain Syndrome
- Certificate of Resources and Action Protocols in Support and Social and Health Care for people with disabilities

#### 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

### Ms. González Villarejo, Lara

- Physiotherapist at Crene
- Professor at the Francisco de Vitoria University
- Graduated in Physiotherapy at the UAH

### Ms. López-Hazas Jiménez, Gemma

- Physiotherapist Specializing in Neurology
- Neurological Physiotherapist at the Multiple Sclerosis Association of Fuenlabreña
- Neurological Physiotherapist at the AMAS Social Foundation
- Internship tutor for students of the Degree in Physiotherapy at the CEU San Pablo University
- Degree in Physiotherapy at the University San Rafael Nebrija
- Master's Degree in Motor Neurocontrol by Rey Juan Carlos Univeristy
- Expert in Neurological Physiotherapy by the Complutense University of Madrid

### 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. 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

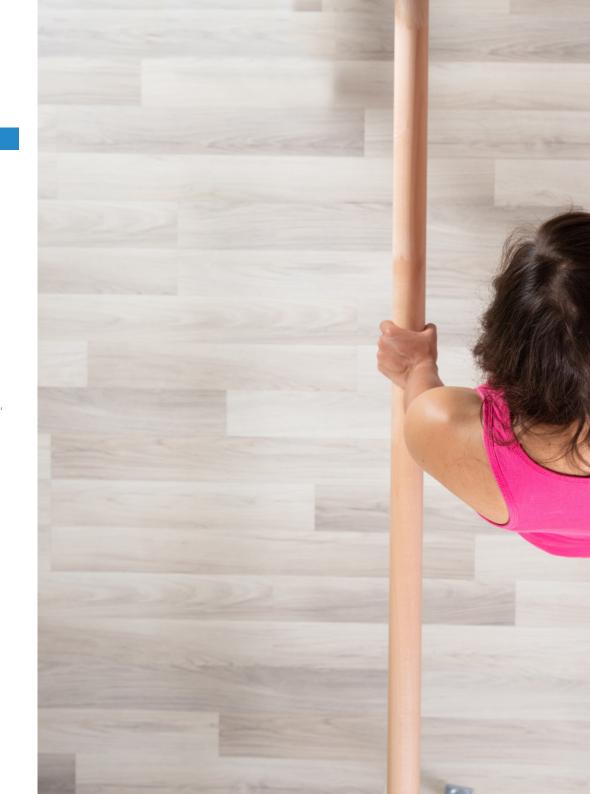




### tech 26 | Structure and Content

### 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





### Structure and Content | 27 tech

- 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

### tech 28 | Structure and Content

- 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
- 5.9. Readaptation
  - 6.9.1. Social Aspects/Support
  - 6.9.2. Comprehensive Care for Patients, Families and Caregivers
- 6.10. Early Prevention and Detection

### tech 30 | Structure and Content

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

7 4		1 .	1 11
/		Introd	duction
/ .	١.	HILLOC	auctioi i

- 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

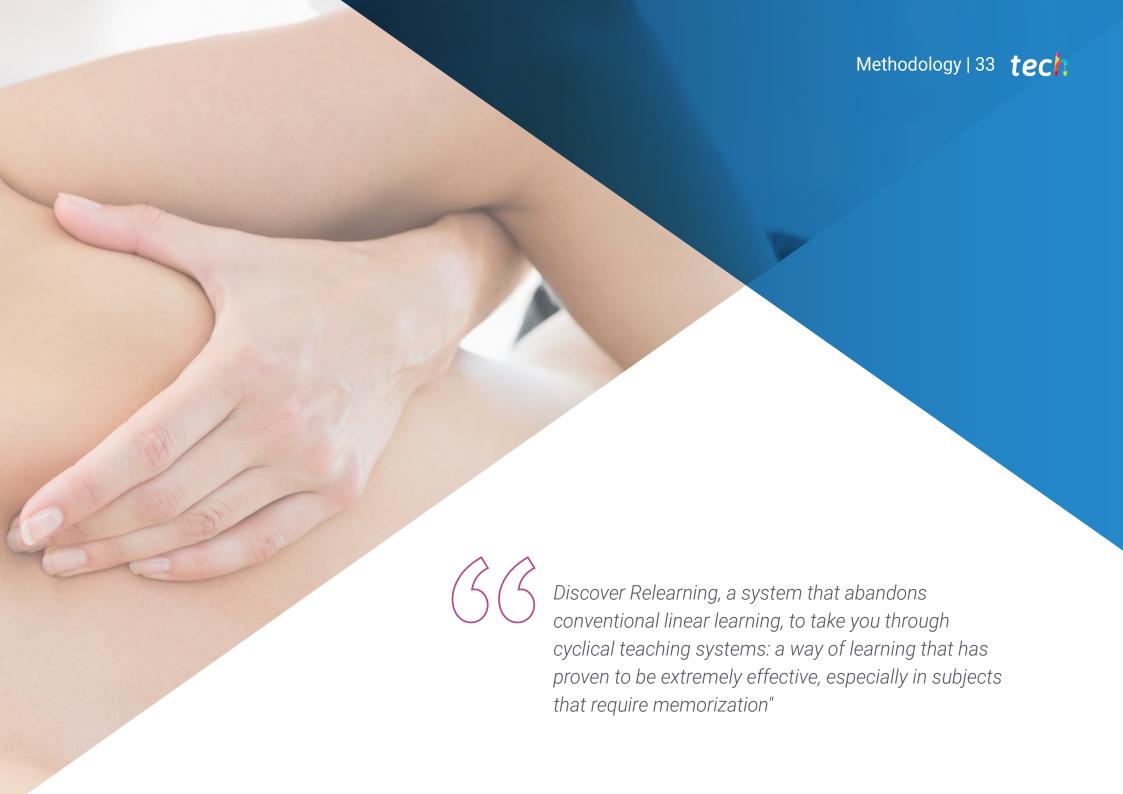
### Module 10. Neoplasms or Nervous System Tumors

- 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
- 10.7. Physiotherapy Treatment
- 10.8. Orthopedics
  - 10.8.1. Support Products
  - 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



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.

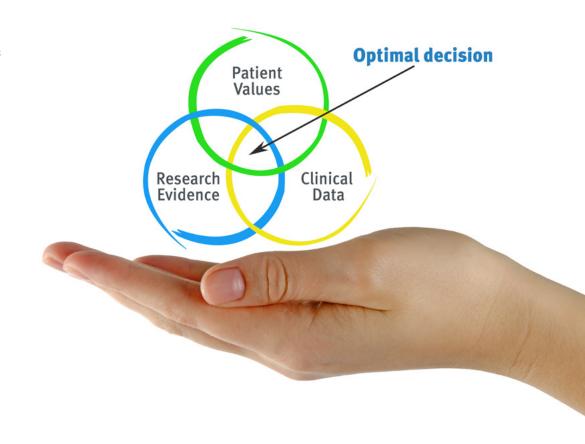


### tech 34 | Methodology

#### 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.



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.



### Methodology | 37 tech

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**

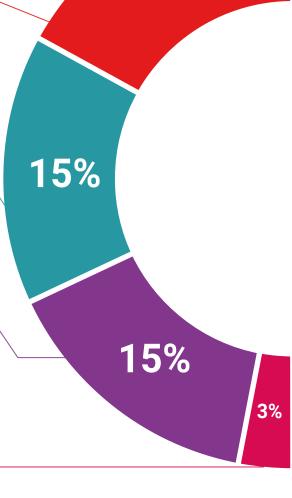
TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can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

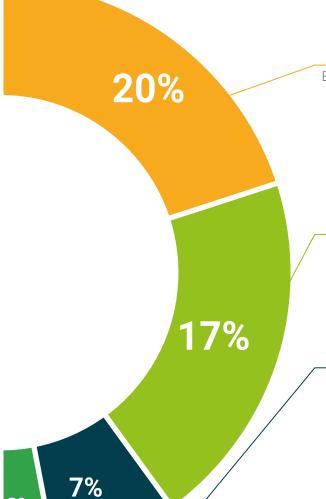
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





### **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.







### tech 40 | Certificate

This private qualification will allow you to obtain a **Professional Master's Degree diploma in Neurological Physiotherapy in Degenerative Diseases** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

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

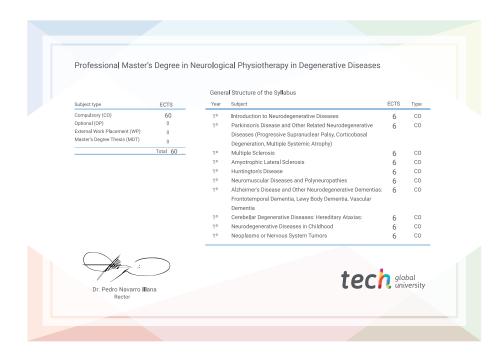
Title: Professional Master's Degree in Neurological Physiotherapy in Degenerative Diseases

Modality: online

Duration: 12 months

Accreditation: 60 ECTS





<sup>\*</sup>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.

health

guarantee
teaching
tech
university

# Professional Master's Degree

Neurological Physiotherapy in Degenerative Diseases

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

