Hybrid Professional Master's Degree Physiotherapy in the Approach to Acquired Brain Injury

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NBA





## Hybrid Professional Master's Degree

Physiotherapy in the Approach to Acquired Brain Injury

Course Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h. Website: www.techtitute.com/in/physiotherapy/hybrid-professional-master-degree/hybrid-professional-master-degree-physiotherapy-approach-acquired-brain-injury

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# 01 Introduction

Great advances in neuroscience, and more specifically in physiotherapy applied to the approach of patients with Acquired Brain Injury, force sector professionals to update their knowledge to keep updated with the latest techniques and procedures to treat patients more effectively, whether they are children, adults or geriatric patients. With this in mind, TECH has devised an innovative program that offers students the possibility of complementing their theoretical learning with an intensive practical stay in a national and international reference center.



By increasing your education in Physiotherapy in the Approach to Acquired Brain Injury, you will be able to improve your patients' care and achieve more beneficial outcomes for their health"

## tech 06 | Introduction

Patients with acquired brain injury require physiotherapy to achieve optimal functional levels, facilitate their independence with the highest possible quality of life and their integration into society. Therefore, these are highly demanded therapies that, in addition, have improved drastically, thanks to new technological advances. In this sense, it is necessary that physiotherapists specialized in this field, or those who wish to enter it, bet on postgraduate studies as the main method to increase their training and professional growth.

This Hybrid Professional Master's Degree includes a compendium of information on the most updated evidence and scientific knowledge about the nervous system and its rehabilitation when it is injured in a supervening way. Thanks to this, it is able to specialize physiotherapists who have never dealt with people with this type of disease and, nevertheless, is interested in having a professional future related to the treatment of this type of patients. Likewise, professionals who are already neurological physiotherapists, whether or not they deal with Acquired Brain Injury, will find a space to update their knowledge and reach super-specialization in this group of patients.

Upon registration, professionals will have access to multiple theoretical resources, developed by a highly specialized teaching staff, and to an endless number of practical activities, simulated exercises, master classes, complementary readings and interactive summaries that will complement their learning in a didactic manner.

In addition, once they have passed all the evaluations of the online content, students will have access to a practical internship in a reference center. This way, during 3 weeks they will be part of real work teams, attending to patients suffering from Acquired Brain Injury and receiving physiotherapeutic treatments to improve their quality of life. Students will have a tutor who will guide them during their internship and show them the most current procedures used in this sector.

This Hybrid Professional Master's Degree in Physiotherapy in the Approach to Acquired Brain Injury contains the most complete and up-to-date scientific program on the market. The most important features include:

- Development of more than 100 clinical cases presented by professionals in neurological physiotherapy
- Their graphic, schematic and eminently practical contents provide scientific and assistance information on those disciplines that are essential for professional practice
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- The practical guides on the approach to cases related to the management of acquired brain injury
- Its special emphasis on evidence-based medicine and research methodologies in physiotherapy applied to the management of acquired brain injury
- 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
- The realization of a clinical internship in one of the best hospitals in the country

Physiotherapy brings significant benefits to patients with brain damage. Specialize in TECH and learn the main techniques that you will be able to put into practice in these cases"

### Introduction | 07 tech

Thanks to the higher specialization offered by this Hybrid Professional Master's Degree, you will be able to develop the competences and skills needed to offer a more personalized and adapted care to patients' needs"

In this Professional Master's Degree proposal, of a professional nature and blended mode, the program is intended to update physiotherapists' knowledge in an area of great relevance such as the approach to Acquired Brain Injury. Contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge into research practice. Likewise, theoretical and practical elements will facilitate knowledge updating and will allow effective decision making in highly responsible environments.

In addition, its multimedia content, developed with the latest educational technology, will allow physiotherapists a situated and contextual study, that is, a simulated environment that will provide an immersive learning programmed to prepare them for real situations. This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

Take an intensive 3-week internship in a prestigious center, where you can learn from the leading experts in the field.

> Start your own business and become a reference in neurological physiotherapy.

## 02 Why Study this Hybrid Professional Master's Degree?

Acquired Brain Injury requires updated strategies of physiotherapeutic approach due to the severe affectations that it causes in the quality of life of patients. This discipline aspires to have the best-trained experts and constantly offers employment opportunities for those who manage to holistically handle its most complex strategies and tools. TECH wants to insert its students in this competitive and demanding work environment by means of a Certificate that gathers, as never before, theoretical contents and practical competences from 1,500 educational hours in its online platform of studies and 120 practical hours in a prestigious clinical center.

Why Study this Hybrid Professional | 09 **tech** Master's Degree?

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With this program's contents you will achieve practical skills essential to distinguish yourself from other professionals in neurological physiotherapy"

## tech 10 | Why Study this Hybrid Professional Master's Degree?

#### 1. Updating from the latest technology available

The neuronal rehabilitation of patients with acquired Brain Injury is supported by several technologies and working tools. Students of this Hybrid Professional Master's Degree will analyze all of them and, upon completion of their studies, will be able to handle them with greater ease.

#### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

The best teachers will be available to TECH students during the theoretical phase of this program. In turn, these same students will work alongside experts with extensive experience in their daily work environments, in a face-to-face stay that will be exclusively practical exclusively practical.

#### 3. Entering into first class Physiotherapist environments

This academic program, unique in its kind in the educational market, facilitates students' access to the most prepared centers for the physiotherapeutic intervention of patients with Acquired Brain Injury. These institutions, carefully selected by TECH, have the latest technologies and the most qualified experts in this academic field.





#### Why Study this Hybrid Professional | 11 **tech** Master's Degree?

#### 4. Combining the Best Theory with State-of-the-Art Practice

From the first minute of the face-to-face stay that is part of this blended master's program, students will be directly involved with cases and complexities of the professional environment. This way, TECH will provide them with an effective combination of theoretical contents learned in the online study modality with the most demanded competencies in neurological physiotherapy.

#### 5. Expanding the Boundaries of Knowledge

TECH offers its students the possibility of performing their practical education in centers of international importance. This way, its graduates acquire new horizons alongside the best professionals from different continents. A unique opportunity that only TECH, the largest online university in the world, could offer.

**666** You will have a total practical immersion in the center of your choice"

# 03 **Objectives**

The completion of this Hybrid Professional Master's Degree in Physiotherapy in the Approach to Acquired Brain Injury is a unique opportunity for professionals in the sector, as they can update their knowledge with the most innovative teaching methodology of the moment and the most updated theoretical and practical content. This is a great added value to get updated with the most current techniques and procedures, but also to learn by working in a real environment, thanks to the possibility of an intensive stay in a reference center.



By identifying behavioral disorders associated with ACD, you will be able to refer patients to the appropriate specialist, achieving substantial improvements in their health"

## tech 14 | Objectives



### **General Objective**

 The main objective of this program is to promote the specialization of physiotherapists in neurological rehabilitation, thanks to the best online content and an eminently practical stay in a reference center, where they can learn about latest scientific evidence in the field. This way, they will acquire skills to facilitate the integration of neurological patients, taking into account all their complexity, achieving greater success and a better quality of life for the patients



By identifying behavioral disorders associated with ABI, you will be able to refer patients to the appropriate specialist, achieving substantial improvements in their health"







## Specific Objectives

#### Module 1. Neuroanatomy and Neurophysiology

- To know the structural anatomical basis of the nervous system
- To know the functional anatomical bases of the nervous system
- To gain updated knowledge of the physiology of movement
- To analyze the neurophysiological processes of motor learning
- To review the different theories of motor control
- To update knowledge in neuroscience applicable to neurological injury

#### Module 2. ABI

- To differentiate what is and what is not ABI
- To deepen in the epidemiology of ABI
- To know the implications of ABI according to the patient's age
- To identify various symptoms and syndromes according to the area of involvement of ABI
- To learn to identify hemineglect and to know its implications for the patient and for the therapeutic approach
- To learn to recognize the pusher syndrome and gain up-to-date knowledge about it in view of its implications in the therapeutic approach
- To understand difference between cerebellar versus basal ganglia symptomatology
- To distinguish spasticity from other tone disturbances
- To recognize apraxia and its implications for the patient and the therapeutic approach
- To learn to identify alien hand syndrome

## Objectives | 15 tech

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#### Module 3. Assessment of the ABI Patient

- To interpret the radiological findings in a CAT scan
- To interpret the radiological findings in MRI
- To know the different types of complementary radiodiagnostic tests
- To learn to carry out a complete neurological examination
- To plan the therapeutic approach in function with the findings in the neurological examination and physiotherapeutic assessment
- To learn examination techniques for the differential diagnosis of the different neurological signs and symptoms
- To know the pathological reflexes and identify them
- Toconduct a review of assessment scales and tests
- To learn to write physiotherapy reports
- To learn to interpret medical reports or reports from other specialists in order to extract the relevant information

#### Module 4. Multidisciplinary Intervention in ABI

- To know the different methods and concepts used by neurological physiotherapists
- To perform a review of the scientific evidence on the different therapeutic methods, concepts and tools
- To know the therapeutic tools of other professionals from the clinical team
- To know the competencies of other professionals in the clinical team in order to learn how to refer to them when necessary
- To review the most useful orthoses and support products for patients with ABI
- To learn to identify communication disorders in order to refer them to the competent professional and contemplate them in the patient's overall condition
- To learn to identify swallowing disorders in order to refer them to the competent professional and contemplate them in the overall condition of the patient
- To know the different cognitive domains
- To recognize implication of different cognitive domains, injured or intact, in movement impairment and what implication they have in physiotherapeutic approach
- To learn to identify behavioral disorders secondary to ABI in order to refer them to the competent professional and contemplate them in the overall condition of the patient
- To consider the emotional states of the patient and the family and how it affects the approach and rehabilitation

## Objectives | 17 tech

#### Module 5. Complications in Patients with ABI

- To review the most frequent complications of the patient with ABI in order to prevent or mitigate them
- To learn to identify pain and how to approach it
- To identify the factors which provoke shoulder pain, how to prevent it and how to approach it once it appears
- To recognize respiratory complications and know their approach from a physiotherapy
  point of view
- To learn to identify the signs and symptoms of complications that must be referred to other professionals

#### Module 6. ABI in Pediatrics

- To review the normative neurodevelopment to identify the prognosis in the rehabilitation of ABI as a function of age
- To learn to assess pediatric age for its specific and age-specific characteristics
- To know the specific approach models of pediatric physiotherapy in ABI
- To review the competencies of other professionals in teamwork in pediatrics
- To know the implication of the educational field in the rehabilitation of minors with ABI

#### Module 7. ABI in Altered States of Consciousness

- To review the neurophysiology of consciousness
- To learn to assess the grade of alteration of consciousness
- To learn to estimate a prognosis based on examination and evolution
- To identify the appearance of pain in people with altered consciousness
- To learn to program a physiotherapeutic approach protocol
- To know the work of the rest of the professionals of the team in order to carry out the therapeutic program
- To perform a review of possible complications in at attempt to avoid them or alleviate them

#### Module 8. ABI in Geriatrics

- To know the characteristics specific to geriatric patients with ABI
- To review the typical comorbidities in the elderly
- To learn to create a rehabilitation program in conjunction with the rest of the team
- To know the discharge options in order to make the best decision for the patient regarding their residence and rehabilitation
- To learn to appropraitely adjust the environment to make it as functional as possible
- To know the role of the family and legal guardians
- To perform a review of the most used technical supports for geriatric patients with ABI

## 04 **Skills**

At the end of this Hybrid Professional Master's Degree in TECH, students will have acquired specific competencies to treat all types of patients affected by brain damage. For this purpose, they will be able to update their knowledge with the most innovative program on the market, created with the latest scientific evidence on the subject, as well as with practical learning in a reference center. Undoubtedly, the most complete academic option of the moment.

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You will master the most appropriate techniques to care for a geriatric patient with brain damage"

## tech 20 | Skills



**General Skills** 

- Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the field of study
- Integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections about social and ethical responsibilities linked to the application of their knowledge and judgments
- Know how to communicate your research findings to specialized and non-specialized audiences in a clear and unambiguous manner
- Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner
- Apply the newest techniques of physiotherapy applied in the approach to acquired brain injury



## Specific Skills

- Gain in-depth understanding of the epidemiology of ABI
- Describe the implications of ABI according to the age of the patient
- Explain the therapeutic tools of other professionals from the clinical team
- Define competencies of other professionals in the clinical team in order to learn how to refer to them when necessary
- Explain the different types of complementary radiodiagnostic tests
- Learn to carry out a complete neurological examination
- Plan a therapeutic approach based on the findings of the neurological examination and physiotherapeutic assessment
- Explain the work of the rest of the professionals of the team to perform the therapeutic program
- Carry out a review of the possible complications in at attempt to avoid them or alleviate them
- Gain up-to-date knowledge of the physiology of movement
- Analyze the neurophysiological processes of motor learning
- Explain the characteristics specific to geriatric patients with ABI

- Revise the typical comorbidities in the elderly
- Learn to create a rehabilitation program in conjunction with the rest of the team
- Define the different methods and concepts used by neurological physiotherapists
- Perform a review of the scientific evidence on the different therapeutic methods, concepts and tools
- Define the different cognitive domains
- To recognize implication of different cognitive domains, injured or intact, in movement impairment and what implication they have in physiotherapeutic approach



Enroll now and advance in your field of work with a comprehensive program that will allow you to put into practice everything you have learned"

# 05 Course Management

For this Hybrid Professional Master's Degree, TECH has assembled an expert teaching staff composed of academics and working professionals who will put all their knowledge at the service of students with a single objective: to offer them the best education on the market. A luxury that only TECH, the largest Online University, could offer.

Study a take you

Study and learn from the best and take your skills to the next level by studying at TECH"

## tech 24 | Course Management

#### Management



#### Ms. De Andrés Garrido, Berta

- Coordinator of the Physiotherapy Area at Neurointegra
- Neurophysiotherapist at the Neurological Rehabilitation Center Neurointegra
- Coordinator of the Neurophysiotherapy Study Section of the Spanish Society of Neurology
- Responsible for the Training Area at Neurointegra Neurological Rehabilitation Center
- Postgraduate studies in Physiotherapy for Acquired Brain Injury
- Postgraduate Certificate in Physiotherapy from the Universidad Alfonso X el Sabio. Madrid
- Master's Degree in neurological in Physiotherapy in the Approach to children and adults at the University of Murcia
- Professional Master's Degree in Neurological Physiotherapy from the University Pablo de Olavide

#### Professors

#### Ms. Aguado Caro, Patricia

- Neuropsychologist Specializing in Pediatric Treatment
- Neuropsychologist at the Neurological Rehabilitation Center Neurointegra
- Neuropsychologist at Ineuro Rehabilitation Center
- Degree in Psychology from the University of Seville
- Master's Degree in Pediatric Neuropsychology from the Pablo Olavide University
- Master's Degree in Neurosciences and Behavioral Biology from the Pablo de Olavide University
- Language Therapy Expert by ICSE

#### Dr. Narbona González, Natividad

- Neuropsychologist in Neurointegra
- Neuropsychologist at CPM Aljarafe
- Neuropsychologist at the Sevillian Association of Asperger Syndrome
- Graduate from the University of Seville
- D. in Neurosciences from the Universidad Pablo de Olavide
- Professional Master's Degree in Advanced Studies in Brain and Behavior, University of Seville, Spain
- Expert in Psychosocial Patient Support, Health Services, University of Seville, Spain

### Course Management | 25 tech

#### Mr. Ruiz García, Pablo

- Physiotherapist Specializing in Neurorehabilitation
- Physiotherapist in the La Association of Acquired Cerebral Damage(ADACEA). Alicante, Spain
- Degree in Physiotherapy
- Master's Degree in Neurorehabilitation

#### Dr. Sarrias Arrabal, Esteban

- Psychologist Specialized in Neurosciences
- PhD from the University of Seville
- Graduate in Psychology from the University of Malaga (UMA)
- Master's Degree in Advanced Studies of the Brain and Behavior

#### Dr. Rodríguez Sánchez, Augusto Rembrandt

- Researcher at the University of Seville
- Owner of ENGYmove
- Substitute teacher at the University of Seville
- Degree in Physical Activity and Sports Sciences from the University of Seville
- PhD from the University of Seville
- Master's Degree in Social Education and Sociocultural Animation from the University Pablo de Olavide
- Postgraduate Certificate in Physical Education from the University of Seville

#### Ms. Mena, Alba

Social Worker

#### Mr. Garrido Gálvez, Álvaro

- Occupational Therapist
- Occupational Therapist Beato Fray Leopoldo Residence

#### Ms. Monís Rufino, Estela

- Pediatric Physiotherapist at Neurointegra
- Neurophysiotherapist
- Diploma in Physiotherapy
- Course of Introduction to the Bobath Concept in Pediatrics: Normal Movement by the
  Bobath Foundation
- Master's Degree in Neurophysiotherapy from the Pablo Olavide University
- Postgraduate Specialization in Early Childhood Care by the University of Nebrija
- Specialization Course on Autism Spectrum Disorders by the Autism Association of Seville
- Specialization Course in Neonatal Pediatric Physiotherapy
- Member of the Spanish Society of Neurology, Spanish Society of Pediatric Physiotherapy, Spanish Association of Early Childhood Intervention, Interprofessional Association of Early Childhood Care of Andalusia

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#### Mr. Montero Leyva, José Luis

- Rehabilitation Coordinator at Beato Fray Leopoldo La Residence
- Physiotherapist at Beato Fray Leopoldo La Residence
- Physiotherapist Specialized in Geriatrics and Gerontology
- Member of Spanish Society of Geriatrics and Gerontology

#### Dr. Rubiño Díaz, José Ángel

- Researcher and teacher in the University of the Balearic Islands. Spain
- Member of the Neuropsychology and Cognition Research Team at the Illes Balears Health Research Institute Foundation
- Neuropsychologist and Psychogerontologist at the Calvià Foundation
- Nurse at the Hospital Universitario Son Espases
- Director of the María Aguilera Foundation
- PhD in Neuroscience from the University of the Balearic Islands
- Expert in Direction and Management of Senior Citizen Centers by the Universidad Nacional de Educación a Distancia (UNED)
- Degree in Psychology from the University of Granada

#### Mr. Díez Meleiro, Óscar

- Expert Physiotherapist in Neurorehabilitation
- Founding Partner and Clinical Co-Director of Neurem
- Expert Physiotherapist in Neurorehabilitation at the Alberto Guitián Neuronal Injury Therapeutic Center
- Physiotherapist Expert in Neurorehabilitation at the Asociación Viguesa of Multiple Sclerosis of Pontevedra

- Physiotherapist at the Association of Families of Persons with Cerebral Palsy
- Graduate in Physiotherapy from University of Vigo
- Degree in Psychology from the Universidad Nacional de Educación a Distancia (UNED)
- Master's Degree in Acupuncture in Rehabilitation and Pain Treatment from the University of Santiago de Compostela
- Course on Intensive Therapies in Neurorehabilitation

#### Ms. Amor Hernández, Paloma

- Health Psychologist at Amalgama7
- Health Psychologist at NB Psychology
- Health Psychologist at the Center for Clinical and Social Intervention
- Pre-doctoral researcher in the Constructivist Research Group of the National University of Distance Education (UNED)
- Graduate in Psychology from the Universidad Nacional de Educación a Distancia (UNED)
- Master's Degree in Intervention in Psychology by the National University of Education (UNED)
- Master's Degree in General Health Psychology from the National University of Education (UNED)

## Course Management | 27 tech

#### Ms. Rodríguez Pérez, Mónica

- Neuropsychologist in Neurointegra
- Neuropsychologist at Ineuro-SCA
- Psychologist at Rincomed Medical Examination Center
- PhD Candidate and Neuropsychologist at the CRECER Brain Injury Rehabilitation Center of the University of Seville
- Master's Degree in General Health Psychology from the National University of Education (UNED)
- Grade in Psychology from the University of Seville

#### Mr. Lafuente Jándula, Ignacio

- Physiotherapist Expert in Neurophysiotherapy and Neuroimaging
- Self-Employed Physiotherapist
- Coordinator of Master's Degree in Neurophysiotherapy in the Pablo Olavide University
- Physiotherapist at AISSE Foundations
- Senior Diagnostic Imaging Technician at Vithas Parque San Antonio Hospital
- Postgraduate Expert in Neuroimaging Techniques
- Master's Degree in Neurophysiotherapy from the Universidad Pablo de Olavide
- Graduate in Physiotherapy from University of Malaga

#### Mr. Mariño Estelrrich, Ignacio

- Physiotherapist in Sant Joan de Deú de Martorell Hospital
- Degree in Physiotherapy
- Master's Degree in Neurophysiotherapy
- Master's Degree in Management, Administration and Entrepreneurship of Health Care Centers and Social Services
- Member of College of Physiotherapists of Catalonia

#### Ms. Bacardit Riu, Laura

- Physiotherapist at MiT Fisioterapia
- Physiotherapist Expert in the Treatment of Cerebral Infarct or Traumatic Brain Injury
- Physiotherapy 2.0 speaker, from opinion to evidence
- Master's Degree in Neurorehabilitation by Hospital de Neurorehabilitación Instituto Guttmann

#### Dr. Vázquez Sánchez, Fernando

- Neurologist at the University Hospital of Burgos
- Neurologist at the University Hospital of Burgos. Spain
- Neurologist at the Centre Hospitalier de Bigorre. France
- Neurologist at the Centre Hospitalier Public du Cotentin. France
- Neurologist at the Don Benito-Villanueva Hospital Center. Spain
- Neurologist at the University Hospital of León. Spain
- Author of numerous national and international articles
- Degree in Medicine from the University of Salamanca
- Interuniversity Postgraduate Certificate in Neurophysiology from the University of Lille. France

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#### Mr. Entrena Casas, Álvaro

- Physiotherapist at Neurons Clinic
- Physiotherapist at Clínica Uner
- Physiotherapist at ICTIA: Specialized Rehabilitation Unit for Neurological Injury of ASPAYM Castilla y León
- Expert Physiotherapist in Neurorehabilitation
- Degree in Physiotherapy from the University of Jaén
- Master's Degree in Physiotherapy in Neurology from the Universidad Pablo de Olavide
- Postgraduate Diploma in Respiratory Physiotherapy by the Catholic University of Ávila

#### Dr. Bravo Esteban, Elisabeth

- Researcher Specializing in Neurological Physiotherapy
- Physiotherapist at Cefisa Clinic
- Lecturer in undergraduate and postgraduate studies in Physiotherapy
- Researcher in Physiotherapy for Neurological Pathologies
- Author of several scientific articles
- D. in Social and Health Research and Physical Activity from the University of Castilla-La Mancha
- Postgraduate Certificate in Physiotherapy from the University of Castilla-La Mancha
- Master's Degree in the Study and Treatment of Pain by the King Juan Carlos University

#### Dr. Salgueiro, Carina

- Physiotherapist Specializing in Neurocognitive Rehabilitation
- PhD from the University of Seville
- Degree in Physiotherapy
- Master's Degree in Neurology Rehabilitation: Practical Application of Assessment
   and Treatment
- Professional Master's Degree in Neurosciences
- Master's Degree in Translational Research in Physiotherapy
- Bobath Concept Specialist
- Lecturer at different universities and specialized centers

#### Ms. Moral Saiz, Beatriz

- Child Physiotherapist of the Childhood and Adolescence Assistance Unit
- Child Physiotherapist of the Child and Adolescent Assistance Unit at the La Salle Functional Rehabilitation Institute
- Physiotherapist at Efisiopediatric
- Professor of the Professional Development Course in Child Physiotherapy at the La Salle University Study Center
- Professor of the Expert Course in Child Physiotherapy at the University of Castilla-La Mancha
- Professor of the Professional Master's Degree in Child Physiotherapy at CEU San Pablo University
- Degree in Physiotherapy from the Centro Superior de Estudios Universitarios La Salle, attached to the Universidad Autónoma de Madrid
- Master's Degree in Physiotherapy of the Musculoskeletal System: Advanced Physiotherapy in Pain Treatment by the Centro Superior de Estudios Universitarios La Salle, attached to the Universidad Autónoma de Madrid

### Course Management | 29 tech

- Updating Course in Physiotherapy in COVID-19 Affectation
- Recognizing Early Motor Delays and the Importance of Tummy Time. Pathways.org
- General Movements Course for the Early Detection of Neurological Pathology
- Exoskeleton Handling-EKSO Bionics Level I and II
- Therapeutic Exercises in Neurological Pathologies Course
- Autogenous Drainage Course. Respiratory Physiotherapy Level I and II, Official Course by Jean Chevalier
- Sensorimotor Development as a Basis for Intervention in Pediatric Physiotherapy Respiratory Physiotherapy in Pediatrics
- Expert Course in Pediatric Physiotherapy
- Course of Muscular Bandaging in Pediatrics
- Introduction to the Bobath Concept for Children Course
- Basic Introductory Course on Vojta Therapy
- Introduction to the Bobath Concept. Normal Movement
- Basic and Advanced Course on Balance and Vestibular Rehabilitation
- Continuing Education Course in Manual Physiotherapy of Myofascial Pain Syndrome
- Instructor and Coordinator of Free Time at the Fernando Soto Campos School. Castilla y León
- Member of the Spanish Society of Physiotherapy in Pediatrics, The European Academy for Childhood Disability, Asociación Convives con Espasticidad as Physiotherapist, Volunteer Physiotherapist of Children with Disability (The European Academy for Childhood Disability), Asociación Convives con Espasticidad as Physiotherapist, Physiotherapy Volunteering with Children with Spatial Needs at the Yayasan Widya Guna Center Bali and Volunteering of Physiotherapy with Children with Spatial Needs at the Hospital Catholique Notre Dame de la Santé Servantes de Marie

#### Ms. Ferreiro Pardo, Tatiana

- Physiotherapist Specializing in Neurorehabilitation in Fivan
- Pediatric Physiotherapist at the Early Childhood Care Center
- Neurological Physiotherapist at EuroEspes
- Physiotherapist in Residence and CD Meu Lar
- Physiotherapist
- Postgraduate Certificate in Physiotherapy from the University of Valencia
- Master's Degree in Neurosciences by the University of Santiago de Compostela

#### Dr. Lerma Lara, Sergio

- Co-founder of Smart Dyspnea and Dean of the Faculty of Health Sciences CSEU La Salle
- Researcher at the Niño Jesús University Children's Hospital
- Professor of the Professional Master's Degree in Applied Biomechanics
- Technical Coordinator of the Movement Analysis Laboratory at the Hospital Infantil Universitario Niño Jesús
- Doctor Cum Laude in Physiotherapy by the Universidad Rey Juan Carlos
- Professional Master's Degree in the Study and Treatment of Pain in the Universidad Rey Juan Carlos
- Graduate in Physiotherapy from Comillas Pontifical University
- Maitland Concept of Orthopedic Manual Therapy Course

#### Ms. Piñel Cabas, Inmaculada

- Occupational Therapist at Neurointegra
- Occupational Therapist at Ineuro Project
- Degree in Occupational Therapy from the University of Granada
- Professional Master's Degree in New Trends in Health Sciences Research by the University of Malaga

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#### Mr. Calderón Lucena, Antonio

- Occupational Therapist
- Medical Park Rehabilitation Clinic (Bad Feilnbach)

#### Ms. Campos Martínez, Julia

- Expert Physiotherapist in Neurophysiotherapy
- Physiotherapist at Hospital Vithas Almeria
- Neurophysiotherapist in Neurodem Clinic
- Physiotherapist at the Saavedra Physiotherapy Clinic
- Postgraduate Certificate in Physiotherapy from the University of Almeria
- Master's Degree in Neurophysiotherapy
- Course in Functional Neuropsychology
- Course in Joint Contention Techniques and Neuromuscular Taping, Physiotherapy and Traumatology
- Course on Diagnosis and Assessment in Physical Therapy and International Classification of Dysfunction

#### Dr. Lozano Lozano, Mario

- Teaching Researcher in the Department of Physiotherapy Faculty of Health Sciences of Health
- Teaching Researcher in the Department of Physiotherapy in the Faculty of Health Sciences at the University of Granada
- PhD in Clinical Medicine and Public Health
- Graduate in Occupational Therapy from the University of Granada
- Member of Cuídate, Research Group of the Oncology Patient Support Unit, Steering Committee of the European Task Force of Occupational Therapy in Palliative Care

#### Ms. Agúndez Leroux, Sandra

- Occupational Therapist at Neurointegra Neurological Rehabilitation Center
- Occupational Therapist at Ineuro SCA
- Occupational Therapist at Plena Inclusión
- Occupational Therapist Specializing in Neurotherapy
- Graduate in Occupational Therapy from the University of Extremadura
- Professional Master's Degree in Research in Social and Health Sciences from the University of Extremadura
- Master's Degree in Occupational Guidance from the Universidad Pablo de Olavide

#### Mr. Crespillo, Víctor

- Psychologist
- Domus vi sad Sevilla

#### Ms. Hurtado de Mendoza Fernández, Alba

- Specialty in Cognitive Neuroscience
- Diploma in Occupational Therapy
- Master's Degree in Neuroscience
- Specialty in Cognitive Neuroscience
- Advanced training in Neurorehabilitation

#### Dr. Pérez Nombela, Soraya

- Physiotherapist in the University University of Castilla-La Mancha
- Research Physiotherapist at the National Hospital of Paraplegics
- Postgraduate Certificate in Physiotherapy from the University of Castilla-La Mancha
- Master's Degree in Neurological Pathology from Rey Juan Carlos University
- Specialist in Human Gait Biomechanics, Neurorehabilitation, Robotics and Spinal Cord Injury

## Course Management | 31 tech

#### Ms. Abelleira Sánchez, Estefanía

- Physiotherapist Specialized in Neurorehabilitation
- Private practice physiotherapist
- Physiotherapist at the Purísima Concepción Foundation of Hermanas Hospitalarias
- Neurophysiotherapist at Centro Terapéutico Vibra
- Physiotherapist at the Malagueña Association of Parents of Cerebral Palsy
- Physiotherapist in nursing homes
- Postgraduate Certificate in Physiotherapy from the University Ramon Llull
- Master's Degree in Neurophysiotherapy from the Universidad Pablo de Olavide
- Professional Master's Degree in Nervous System Sciences, University of Almeria, Spain

#### Mr. García Peñalver, Antonio Francisco

- Specialist in Physiotherapy
- Physiotherapist at home. Motril, España
- Physiotherapist at the Europe Physiotherapy Clinic
- Master's Degree in Neurophysiotherapy from the Universidad Pablo de Olavide
- Diploma in Physiotherapy from the University of Granada
- Course in Perinatal Aquatic Activities
- Mulligan Concept Course in Modules A and B
- Postgraduate in Neuromuscular Taping
- Physiotherapeutic Treatment in Temporomandibular Disjunctions

#### Mr. Abeledo, Juan Luis

- Physical Therapist Specialist in Aquatic Therapy for People with Disabilities
- Physiotherapist at the Upacesur Foundation
- Physiotherapist at the Ceutí Rehabilitation Institute
- Physiotherapist at the Association for the Disabled of Rota
- Vice President of RETacua
- Diploma in Physiotherapy from the University of Cadiz
- Postgraduate Specialist in Hydrotherapy from the University of Castilla-La Mancha
- Courses and participation in conferences on Physiotherapy Applied to People with Cerebral Complexities

#### Dr. Gómez Soriano, Julio

- Head of the Toledo Physiotherapy Research Group (GIFTO)
- Head of the Toledo Physiotherapy Research Group (GIFTO) at the University School of Nursing and Physiotherapy of Toledo at the University of Castilla-La Mancha
- Collaborating researcher of the Sensory-Motor Function Group at the National Hospital for Paraplegics. Toledo, España
- D. in Neurological Pathology from the Department of Physical Therapy, Occupational Therapy, Rehabilitation and Physical Medicine
- Master's Degree in Neurological Pathology from Rey Juan Carlos University
- D. in Neurological Pathology from the Universidad Rey Juan Carlos
- Diploma in Physiotherapy
- Graduate in Physical Activity and Sports Sciences from the University of Castilla-La Mancha

## tech 32 | Course Management

#### Ms. Soto Martínez, Alba Alicia

- Physical Therapist Specializing in Neurological Physiotherapy
- Neurological Physiotherapist in Atece Araba
- Neurophysiotherapist in Fisun
- Neurological Physiotherapist at Integra Cerebral Damage
- Physiotherapist in CEAM Generalitat Valenciana
- Graduate in Physiotherapy from the Universidad CEU Cardenal Herrera
- Professional Master's Degree in Neurological Physiotherapy from the University Pablo de Olavide

#### Dr. Ferrand Ferri, Patricia

- Specialist in Physical Medicine and Rehabilitation
- Specialist in Physical Medicine and Rehabilitation at the Virgen del Rocío University Hospital
- Speaker at congresses related to his specialty
- Co-author of the article Análisis de consistencia de los parámetros temporoespaciales con la valoración de la marcha en pacientes con lctus (Consistency analysis of temporo-spatial parameters with gait assessment in stroke patients)

#### Ms. Mendoza González, Lucrecia

- Specialist in Physical Medicine and Rehabilitation
- Master's Degree in Evaluative Medicine and Medical Expertise
- Specialist Degree in Child Disability
- Expert in Child Rehabilitation
- Expert in Musculoskeletal Ultrasound

#### Ms. Arjona Vega, MARÍA Del Rocío

- Speech Therapist Expert in Speech Therapy Intervention for Brain Damage
- Speech therapist at the Hospital San Juan de Dios. Sevilla, España
- Speech therapist at INEUROSCA
- Speech therapist at Casaverde Hospital
- Postgraduate Certificate in Speech Therapy from the University of Malaga
- Specialization Course in Speech Therapy Intervention in Cerebral Damage by the Official College of Speech Therapists of Andalusia
- Specialization Course in Autism Spectrum Disorder by the Official College of Speech Therapists of Andalusia

#### Dr. Lara Lezama, Lidia

- Assistant Physician of the Neurology Department
- · Assistant Physician of the Neurology Service at the University Health Care Complex of León
- Specialist in Neurology
- Degree in Medicine and Surgery

#### Ms. Aguirre Moreno, Arantzazu

- Occupational Therapist in the Child and Adolescent Unit
- Occupational Therapist of the Child and Adolescent Unit at the Day Hospital in the Mental Health Area
- Occupational Therapist at the Galey Clinic
- Occupational Therapist at Orion Children's Therapy Center
- Professor in courses and workshops related to Sensory Integration
- Postgraduate Certificate in Occupational Therapy from the Complutense University of Madrid
- Professional Master's Degree in Early Childhood Care at the Technical Institute of Applied Studies (ITEAP)

## Course Management | 33 tech

#### Mr. Del Barco Gavala, Alberto

- Clinical Neuropsychologist at the Valencian Neurorehabilitation Institute Foundation
- Coordinator of the Clinical Neuropsychology Program at the Virgen Macarena
   University Hospital
- Clinical Neuropsychologist at the Chárbel Neurorehabilitation Institute
- Clinical Neuropsychologist at the General Hospital of Jerez de la Frontera
- Director of the Consortium for Clinical Neuropsychology
- Author of the book Neuropsychology of Brain Injury due to Stroke and TBI
- University graduate professor
- Degree in Psychology from the University of Granada
- Master's Degree in Clinical Neuropsychology from the Pablo Olavide University

#### Dr. De la Fuente, Rebeca

- Doctor specialized in Neurology
- Assistant Physician of the Neurology Service at the University Hospital of León. Spain
- Author of several scientific publications related to Neurology
- Speaker at congresses related to Neurology

#### Ms. Gallego, Belén

Occupational Therapist

#### Mr. Pérez Miralles, José Antonio

- Physiotherapist in the New Option , Association of Acquired Cerebral Damage. Valencia, Spain
- Physician associated with the Faculty of Physiotherapy at the University of Valencia
- Postgraduate Certificate in Physiotherapy from the University of Valencia
- Specialist in Neurological Physiotherapy

#### Mr. Moreno Martínez, Alejandro

- Physiotherapy in Pediatrics and Early Care Dry Needling in Myofascial Pain Syndrome
- Respiratory Physiotherapist in SISU Andalusian Association in Palliative Care
- Pediatric Respiratory Physiotherapist at New Health Foundation
- Physiotherapist at the La Cruz Azul Association
- Physiotherapist in Physiotherapy Alejandro Vallejo
- Physiotherapist in Zona Sportiva Empresarial
- Physiotherapist in the Hockey Championship at FC Barcelona
- Physiotherapist in Fisioterapia Alcha
- Health Consultant at Solutia Global Health Solutions, SL
- Physiotherapist from the University of Seville
- Professional Master's Degree in New Trends in Health Sciences, Physiotherapy, University of Seville, Spain
- Professional Master's Degree in Advanced Manual Physical Therapy and Therapeutic Exercise by the Complutense University of Madrid
- Expert in Respiratory Physiotherapy in the Adult and Pediatric Patient by the European University of Madrid
- Consejo General de Colegios de Fisioterapeutas de España (General Council of Spanish Physiotherapist Associations) in the Training Program, Therapeutic Exercise
- Therapeutic Exercise Program for Fragile People at the College of Physiotherapists of Andalusia
- Course of Dry Needling in Myofascial Pain Syndrome, Physiotherapy by the Universidad Rey Juan Carlos

## tech 34 | Course Management

#### Dr. Carrasco Pérez, Ana

- Physical Therapist Specializing in Pediatric Neurophysiotherapy
- Pediatric Physiotherapist at the Infant Early Childhood Care Center La Paz
- Physiotherapist at the Crecer Brain Injury Rehabilitation Center
- Pediatric Physical Therapist in Wild Souls Association
- D. in Physiotherapy, Physical Exercise, Health and Dependence from the University of Murcia
- Graduate in Physiotherapy from the University of Seville
- Master's Degree in neurological in the approach to the patient children and adults at the University of Murcia

#### Ms. Fernández Muñoz, María

- Physiotherapist at AFAD Molina de Aragón
- Physiotherapist at the Santa Ana Residence. Madrid
- Physiotherapist at the Las Sabinas Residence. Spain
- Physiotherapist at La Solana Residential Center. Madrid
- Geriatric Physiotherapy
- Neurorehabilitation Expert
- Degree in Physiotherapy from the University of Alcalá
- Course of Basal Stimulation
- Course of Physiotherapy in Geriatrics: Psychomotor Re-education in the Frail Elderly





## Course Management | 35 tech

#### Mr. Arévalo Mora, Óscar

- Geriatric and Child Physiotherapist
- Physiotherapist in Association with CAIT Montilla Bono
- Physiotherapist at the Center for Physiotherapy and Osteopathy Mágina
- Postgraduate Course in Physiotherapy, University of Jaén
- Postgraduate Diploma's Degree in Manual Physical Therapy in Musculoskeletal Pain Management from the University of Jaén

You will develop specialized skills under the close supervision of the best professors and an assistant tutor who, in the classroom practice of this Certificate, will help you integrate more demanding and rigorous skills".

## 06 Educational Plan

This Hybrid Professional Master's Degree in Physiotherapy in the Approach to Acquired Brain Injury offers students the most up-to-date syllabus on the subject. Therefore, throughout 8 modules, students will increase their knowledge in neuroanatomy, DCA, patient assessment, therapeutic approach, complications of patients, or the care of children or geriatric patients, among other aspects. All of these issues are fundamental to achieve an effective approach to improve the quality of life of people with this type of damage.

This Syllabus conforms to the most widespread international criteria for the application of Physiotherapy to patients with Acquired Brain Injury"

### tech 38 Educational Plan

Module 1. Neuroanatomy and Neurophysiology

1.1. Anatomy

- 1.1.1. Introduction to Structural Anatomy
- 1.1.2. Introduction to Functional Anatomy
- 1.1.3. Spinal Cord
- 1.1.4. Brainstem
- 1.1.5. Frontal
- 1.1.6. Parietal
- 1.1.7. Temporal
- 1.1.8. Occipital
- 1.1.9. Cerebellum
- 1.1.10. Basal Ganglia
- 1.2. Physiology
  - 1.2.1. Neuroplasticity
  - 1.2.2. Muscle Tone
- 1.3. Motor Control
  - 1.3.1. Motor Behavior
  - 1.3.2. Motor Control

#### Module 2. ABI

- 2.1. Defining ABI
  - 2.1.1. ABI in Adults
  - 2.1.2. ABI in Childhood
  - 2.1.3. ABI in Elderly People
- 2.2. Functional Alterations
  - 2.2.1. Tone Alterations
  - 2.2.2. Hemineglect
  - 2.2.3. Pusher Syndrome
  - 2.2.4. Cerebellar Syndrome vs. Basal Ganglia . Injury
  - 2.2.5. Alien Hand Syndrome
  - 2.2.6. Apraxia

### Module 3. Assessment of a Patient with ABI

- 3.1. Medical History
- 3.2. Neuroimaging
  - 3.2.1. Structural
  - 3.2.2. Functional Criteria
- 3.3. Neurological Examination
  - 3.3.1. Cranial Nerves
  - 3.3.2. Pathological Reflexes
  - 3.3.3. Muscular
    - 3.3.3.1. Osteotendinous Reflexes
    - 3.3.3.2. Tone
    - 3.3.3.3. Strength
  - 3.3.4. Sensitivity
    - 3.3.4.1. Sensitivity
    - 3.3.4.2. Gnosis
  - 3.3.5. Coordination
  - 3.3.6. Balance
  - 3.3.7. March
  - 3.3.8. Manipulation
- 3.4. Neurological Assessment Scales
- 3.5. Writing the Report
  - 3.5.1. Writing a Physiotherapy Report
  - 3.5.2. Interpretation of Medical Information

### Educational Plan 39 tech

### Module 4. Therapeutic Approaches to ABI Patients

- 4.1. Physiotherapy
  - 4.1.1. Ease of Movement
  - 4.1.2. Neurodynamics
  - 4.1.3. Mirror Therapy
  - 4.1.4. Approach in Context
  - 4.1.5. Approach Oriented to the Task
  - 4.1.6. Intensive Treatment
  - 4.1.7. Constraint Induced Movement Therapy
  - 4.1.8. Dry Needling for Spasticity
  - 4.1.9. Therapeutic Exercise
  - 4.1.10. Hydrotherapy
  - 4.1.11. Electrotherapy
  - 4.1.12. Robotics and Virtual Reality
- 4.2. Equipment
  - 4.2.1. Work Models
  - 4.2.2. Medicine
    - 4.2.2.1. Pharmacology
    - 4.2.2.2. Botulinum toxin
  - 4.2.3. Speech Therapy
    - 4.2.3.1. Communication Disorders
    - 4.2.3.2. Swallowing Disorders
  - 4.2.4. Occupational Therapy
    - 4.2.4.1. Autonomy
    - 4.2.4.2. Occupation
  - 4.2.5. Cognitive Deficit Implications on Movement
  - 4.2.6. Neuropsychology
    - 4.2.6.1. Cognitive Domains
    - 4.2.6.2. Behavioral Disorders
    - 4.2.6.3. Psychological Care for Patients and Their Family
- 4.3. Orthopedics
  - 4.3.1. Orthotics and Support Products
  - 4.3.2. Low-Cost Material
- 4.4. Acute, Subacute and Chronic Phases in ABI

### Module 5. Complications in Patients with ABI

#### 5.1. Pain

- 5.1.1. Comprehensive Pain Assessment
- 5.1.2. Painful Shoulder
- 5.1.3. Neuropathic Pain
- 5.2. Respiratory System
  - 5.2.1. Associated Respiratory Complications
  - 5.2.2. Respiratory Physiotherapy
- 5.3. Epilepsy
  - 5.3.1. Injury Prevention
  - 5.3.2. Injury Recovery
- 5.4. Musculoskeletal Complications
  - 5.4.1. Comprehensive Assessment
  - 5.4.2. Physiotherapy Applied to These Complications
  - 5.4.3. Monitoring Injuries
- 5.5. Complications of Spinal Cord Injury
  - 5.5.1. Characteristics of Such Complications
  - 5.5.2. Physiotherapy Approach

### tech 40 Educational Plan

### Module 6. ABI in Childhood

6.1. Normative Neurodevelopment

6.1.1. Features

- 6.1.2. Aspects to take into account
- 6.2. Pediatric Examination in Physiotherapy
  - 6.2.1. Exploration
  - 6.2.2. Neurological Assessment Scales
- 6.3. Intervention
  - 6.3.1. Physiotherapy
  - 6.3.2. Rest of the Team
    - 6.3.2.1. Medicine
    - 6.3.2.2. Speech Therapy
    - 6.3.3.3. Occupational Therapy
    - 6.3.3.4. Neuropsychology
    - 6.3.3.5. Educational Team

### Module 7. ABI and Altered States of Consciousness

- 7.1. What is an Altered State of Consciousness?
  - 7.1.1. Arousal
  - 7.1.2. Awareness
  - 7.1.3. Neuroanatomy
  - 7.1.4. Neurophysiology
  - 7.1.5. Neuroplasticity
  - 7.1.6. Prognosis
- 7.2. Assessment
  - 7.2.1. Physical Examination
  - 7.2.2. Neurological Assessment Scales
  - 7.2.3. Pain
- 7.3. Intervention
  - 7.3.1. Physiotherapy
    - 7.3.1.1. Stimulation
    - 7.3.1.2. Movement
    - 7.3.1.3. Environment



### Educational Plan 41 tech



### Module 8. ABI in Geriatrics

- 8.1. Distinguishing Features of ABI in Geriatrics
  - 8.1.1. Pluripathology8.1.1.1. Advantages and Disadvantages Associated with Age8.1.2. Physiotherapeutic Treatments
    - .2. Physiotherapeutic freatments
      - 8.1.2.1. The Importance of Setting Team Objectives
- 8.2. Institutionalization vs. Habitual Residence
  - 8.2.1. Adaptation to Surroundings
  - 8.2.2. The Role of the Family
  - 8.2.3. Legal Guardians
  - 8.2.4. Technical Aids

The learning of these didactic subjects will take place on an innovative study platform, 100% online, interactive and designed by TECH so that you can easily access from any device connected to the Internet"

# 07 Clinical Internship

TECH adapts to the needs of today's professionals and offers them the most complete training in the market, which not only has an updated theoretical content, but complements this offer with an intensive practical stay of 3 weeks in a reference center in neurological physiotherapy. In this way, students will be able to learn from leading experts in the field, attending to real patients with brain damage.



GG Get with tha

Get updated in the approach to patients with brain damage thanks to the learning that you will be able to carry out during your internship"

### tech 44 | Clinical Internship

The internship period of this program in Physiotherapy in the Approach to Acquired Brain Injury consists of an intensive stay in a reference center, lasting 3 weeks from Monday to Friday, with 8 consecutive hours of practical learning with an assistant specialist. This stay will allow students to see real patients alongside a team of leading professionals in this area, applying latest technologies and techniques in this field.

In this completely practical education proposal, activities are intended to develop and improve necessary skills and competencies for care of brain-damaged patients. This proposal is oriented to specific qualification of physiotherapist for exercise of their logopedic practice, in a safe environment for the patient and with high professional performance.

It is, no doubt, a unique opportunity to learn by working in an innovative center , that is committed to the quality of its resources and the latest technologies. This way, patient's and professionals' objectives are met in a safe way and following highest quality standards currently required. The center stay will allow professionals to complete a minimum number of clinical practice activities in physiotherapy services in the approach to Acquired Brain Injury, or in patient care and monitoring.

Practical education will be performed with student's active participation performing activities and procedures of each area of competence (learning to learn and learning

to do), with accompaniment and guidance of teachers and other fellow students that facilitate teamwork and multidisciplinary integration as transversal competencies for La physiotherapy praxis (learning to be and learning to relate).

The procedures described below will form basis of practical part of the program, and their implementation is subject both to patient suitability and to center's availability and workload, with proposed activities being the following:



You will learn about new procedures for analyzing brain damage acquired in childhood and the elderly"



### Clinical Internship | 45 **tech**

Module	Practical Activity
Evaluation techniquesand diagnosis of patients with Acquired Brain Injury	To examine normative neurodevelopment to identify prognosis in rehabilitation of Acquired Brain Injury as a function of age
	To estimate a prognosis on basis of examination and evolution
	Gain up-to-date knowledge of the physiology of movement
	Learn to assess degree of altered consciousness and to treat epilepsies
Work Methodologies for Acquired Brain Injury carein childhood and geriatric ages	Know the specific approach models of pediatric physiotherapy in ABI
	To review typical comorbidities of the geriatric patient with Acquired Brain Injury
	Know options at discharge in order to make the best decision for the patient regarding their residence and rehabilitation
	Review the most commonly used technical aids in geriatric patient with ACD
	Assist patient and family emotionally and to understand how they are affected by the approach and rehabilitation
More frequent complications of patient with Acquired Brain Injury	Review most frequent complications of the DCA patient to prevent or mitigate them
	Recognize respiratory complications and know how to approach them from physiotherapy
	Identify factors that cause shoulder pain, how to prevent it and how to deal with it once it appears
	Examine spinal cord injuries and musculoskeletal complications
Current guidelines for therapeutic approach of the patient with Acquired Acquired Brain Injury	Learn to program a physiotherapeutic approach protocol
	Identify behavioral disorders secondary to Acquired Brain Injury in order to refer to competent professional and contemplate them in patient's globality
	Scheduling rehabilitation in conjunction with other professionals

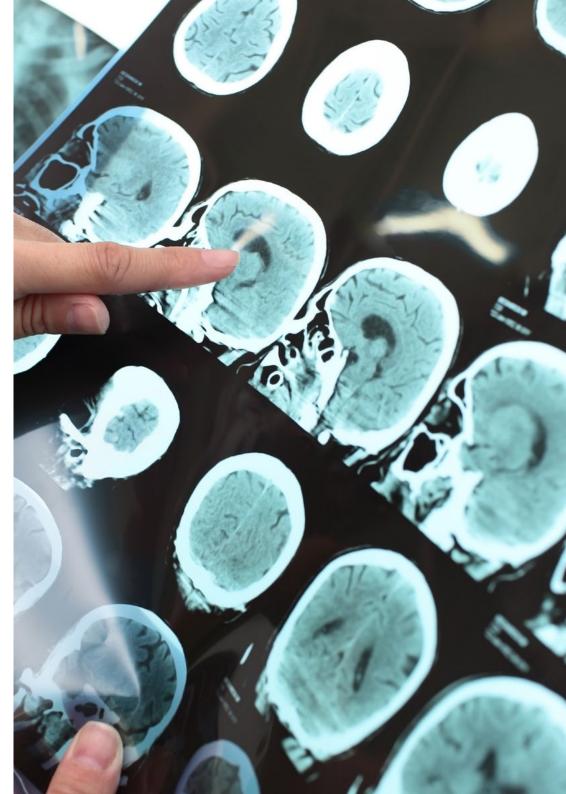
### tech 46 | Clinical Internship

### **Civil Liability Insurance**

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

For this purpose, this educational entity is committed to acquire a liability insurance that covers any eventuality that may arise during the stay.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. This way, the professional will not have to worry in case they have to deal with an unexpected situation and will be covered until the end of the practical program at the center.



### **General Conditions of the Internship Program**

The general terms and conditions of the internship agreement for the program are as follows:

1. TUTOR: During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE**: If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor. **4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: the Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

## 08 Where Can I Do the Clinical Internship?

With the main objective of offering the best education at the moment and following TECH's high quality standards, the academic institution is reaching collaboration agreements with main physiotherapy centers so that students can participate in intensive internships to improve their qualifications. This way, students will be able to get updated with latest tools and techniques for approach to acquired brain injury, treating real patients.

### Where Can I Do the Clinical Internship? | 49 tech

You will be able to learn with the best specialists in the field, thanks to the practical stay offered by TECH"

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### tech 50 | Where Can I Do the Clinical Internship?

The student will be able to take the practical part of this Hybrid Professional Master's Degree in the following centers:



#### ASPAYM Principado de Asturias

Country Spain

Asturias

City

Address: Av. Roma, 4, 33011 Oviedo, Asturias

National federation dedicated to the physical and mental promotion of patients.

Related internship programs: -Neurological Physiotherapy Neurodegenerative Diseases



#### ACD Rehabilitación Oviedo

Country City Spain Asturias

Address: Av. fundación príncipe de Asturias,2, bajo 33004 Asturias

> Interdisciplinary rehabilitation center with a cross-disciplinary approach

Related internship programs: -Physiotherapy in the Approach to Acquired Cerebral Damage Geriatric Physiotherapy



#### ACD Rehabilitación Gijón

Country City Spain Asturias

Address: 4º B., C. Corrida, 59, 33206 Gijón, Asturias

Interdisciplinary rehabilitation center with a cross-disciplinary approach

Related internship programs: Geriatric Physiotherapy - Neurological Physiotherapy in Degenerative Diseases



#### ACD Rehabilitación Avilés

Country Spain City Asturias

Address: C. Pablo Iglesias, Nº 13, Bajo, 33402 Avilés, Asturias

> Interdisciplinary rehabilitation center with a cross-disciplinary approach

#### Related internship programs:

-Physiotherapy in the Approach to Acquired Cerebral Damage Geriatric Physiotherapy



#### Neurovida - Multiespacio Avenidas

Country	City
Spain	Madrid

#### Address: Avenida de Baviera 4-6, 28028, Madrid

Care center for patients with neurodegenerative pathologies or brain damage.

#### Related internship programs:

- Neurological Physiotherapy in Degenerative Diseases



#### Hospital HM Modelo

Country	City
Spain	La Coruña

Address: Rúa Virrey Osorio, 30, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs: - Anaesthesiology and Resuscitation - Palliative Care



#### Hospital Maternidad HM Belén

Country	City
Spain	La Coruña

Address: R. Filantropía, 3, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs: - Update in Assisted Reproduction - Hospitals and Health Services Management



#### Hospital HM San Francisco

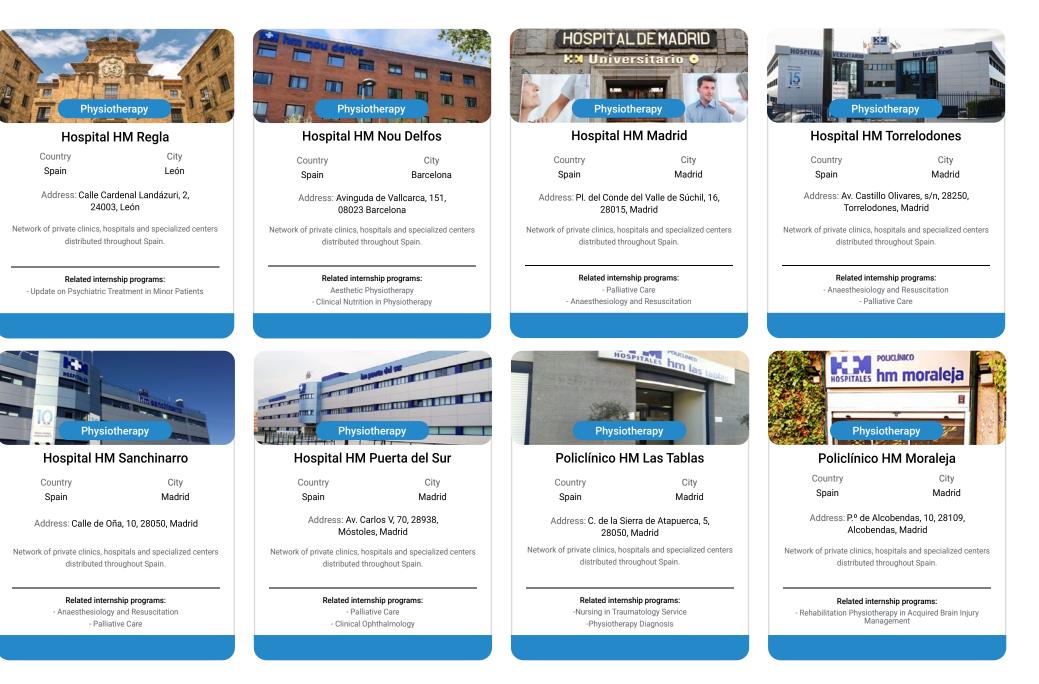
Country	City
Spain	León

Address: C. Marqueses de San Isidro, 11, 24004, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs: -Anesthesiology and Resuscitation Update -Nursing in Traumatology Service

### Where Can I Do the Clinical Internship? | 51 tech



### tech 52 | Where Can I Do the Clinical Internship?

City Madrid



#### Policlínico HM Virgen del Val

Country Spain

Address: Calle de Zaragoza, 6, 28804, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs: -Physiotherapy Diagnosis -Physiotherapy in Early Child Care



Policlínico HM Imi Toledo	
Country	City
Spain	Toledo

Address: Av. de Irlanda, 21, 45005, Toledo

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs: -Electrotherapy in Rehabilitating Physiotherapy - Hair Transplantation



#### Nueva Opción

Country	City
Spain	Valence

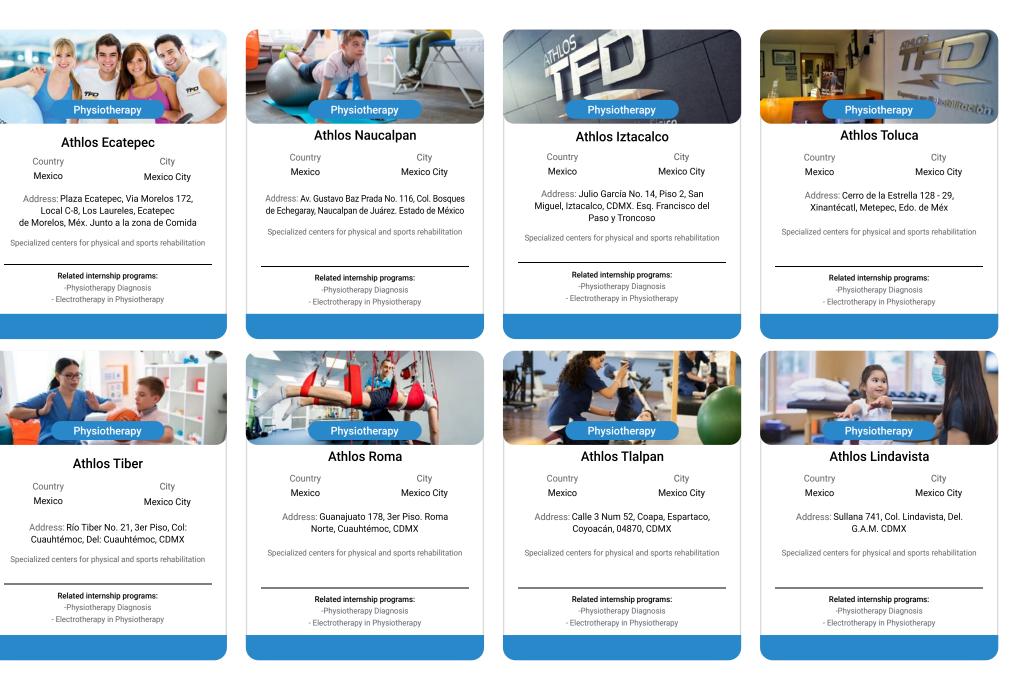
Address: Carrer de Greses, 21, bajo, 46020 Valencia

Association dedicated to the integral treatment

of Acquired Brain Injury

Related internship programs: -Physiotherapy in the Approach to Acquired Cerebral Damage

### Where Can I Do the Clinical Internship? | 53 tech



### tech 54 | Where Can I Do the Clinical Internship?



Country Argentina

Buenos Aires

Address: Bartolomé Mitre 2450, Avellaneda, Buenos Aires, Argentina

Multidisciplinary Rehabilitation Center specialized in physical and occupational recovery.

> Related internship programs: - Clinical Nutrition in Medicine Geriatric Physiotherapy



### Pilares del Rosario

Country	City
Argentina	Santa Fe

Address: Paraguay 2041 Rosario, Santa Fe

Clinic of integral neurorehabilitation of adults and children.

Related internship programs: -Early Attention Physiotherapy -Hyperbaric Medicine





### Where Can I Do the Clinical Internship? | 55 tech



#### Avanza Rehabilitación

Country Argentina City Tucumán

Address: Juan Gregorio de las Heras 581, T4000 San Miguel de Tucumán

Curative and preventive facility, integrating physiotherapy, occupational therapy and social work

#### Related internship programs:

-Physiotherapy in the Approach to Acquired Cerebral Damage -Sports Injury Prevention and Rehabilitation

# 09 **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.

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"

### tech 58 | 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.

 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.



### tech 60 | Methodology

### **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 | 61 tech

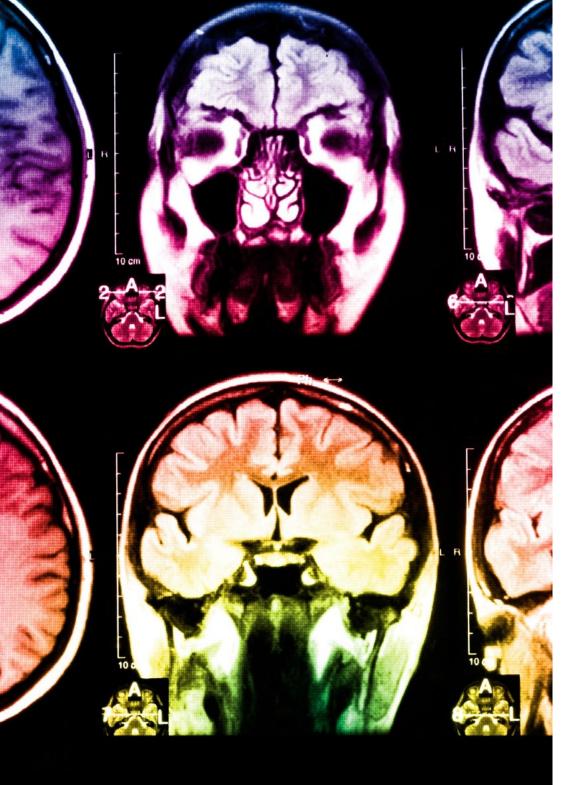
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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.



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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.

20%

15%

3%

15%

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.

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### **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.

20%

7%

3%

17%



### **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



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.

## 10 **Certificate**

This Hybrid Professional Master's Degree in Physiotherapy in the Approach to Acquired Brain Injury guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree diploma issued by TECH Technological University.



Successfully complete this program and receive your university certificate without having to travel or fill out laborious paperwork"

### tech 66 | Certificate

This Certificate of **Hybrid Professional Master's Degree in Physiotherapy in the Approach to Acquired Brain Injury** contains the most complete and up-to-date program on the professional and educational field.

After the student has passed the assessments, they will receive their corresponding Hybrid Professional Master's Degree diploma issued by TECH Technological University via tracked delivery\*.

In addition to the certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

Title: Hybrid Professional Master's Degree in Physiotherapy in the Approach to Acquired Brain Injury

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 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.

technological university Hybrid Professional Master's Degree Physiotherapy in the Approach to Acquired Brain Injury Course Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h.

## Hybrid Professional Master's Degree Physiotherapy in the Approach to Acquired Brain Injury

Endorsed by the NBA

NBA

