

# Postgraduate Diploma

## Physiotherapeutic Approach to Complications in Acquired Brain Injury

Endorsed by the NBA





## Postgraduate Diploma Physiotherapeutic Approach to Complications in Acquired Brain Injury

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

Website: [www.techtute.com/in/physiotherapy/postgraduate-diploma/postgraduate-diploma-physiotherapeutic-approach-complications-acquired-brain-injury](http://www.techtute.com/in/physiotherapy/postgraduate-diploma/postgraduate-diploma-physiotherapeutic-approach-complications-acquired-brain-injury)

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# 01

# Introduction

The increase in the incidence of Acquired Brain Injury (ABI), especially stroke, and its survival, make neurorehabilitation and, therefore, physiotherapy, an indispensable element, since stroke is currently a leading cause of disability.





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*This program will provide you with a sense of confidence in your medical practice, which will help you grow personally and professionally”*

This, coupled with the public's awareness of the need for specialized professionals, is leading to an increase in the demand for physiotherapists who are able to understand how the nervous system works after an injury and how to get the most out of it to minimize the after effects of the injury.

In addition, we are living a time of great advances in the field of Neuroscience, as well as Physiotherapy as a science, which compels TECH to update students' knowledge both about the functioning of the nervous system, as well as how to evaluate and therapeutically approach a person with ABI, since each injury is different and will manifest itself in a different way in each patient.

This Postgraduate Diploma aims to be a compendium of the most up to date evidence and scientific knowledge of the nervous system and its rehabilitation when it is injured in a unexpected way. Thanks to this, it is presented as a master's degree capable of providing specialist training to physiotherapists who have never dealt with people with ABI, but who are interested in steering their professional future towards this type of patient.

Equally, professionals that are already neurological physiotherapists, whether or not they deal with ABI, will find the opportunity to update their knowledge and achieve a more advanced specialization in this type of patients.

In addition, by understanding so much information about Neuroscience and functionality, it can be a useful tool for the physiotherapist whose target patient is not specifically one suffering from an ABI or a neurological pathology, yet needs to know the ins and outs of the nervous system to better understand and address the injury or therapeutic need of the patient.

This **Postgraduate Diploma in Physiotherapeutic Approach to Complications in Acquired Brain Injury** contains the most complete and up to date scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in the Physiotherapeutic Approach to Complications in Acquired Brain Injury
- ♦ The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Latest innovations on the Physiotherapeutic Approach to Complications in Acquired Brain Injury
- ♦ It contains practical exercises where the self evaluation process can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in the Physiotherapeutic Approach to Complications in Acquired Brain Injury
- ♦ All of this will be complemented by 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



*Update your knowledge with this Postgraduate Diploma in the Physiotherapeutic Approach to Complications in Acquired Brain Injury”*

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*This Postgraduate Diploma may be the best investment you can make when choosing a refresher program for two reasons: In addition to updating your knowledge in Physiotherapeutic Approach to Complications in Acquired Brain Injury, you will obtain a qualification from TECH Technological University”*

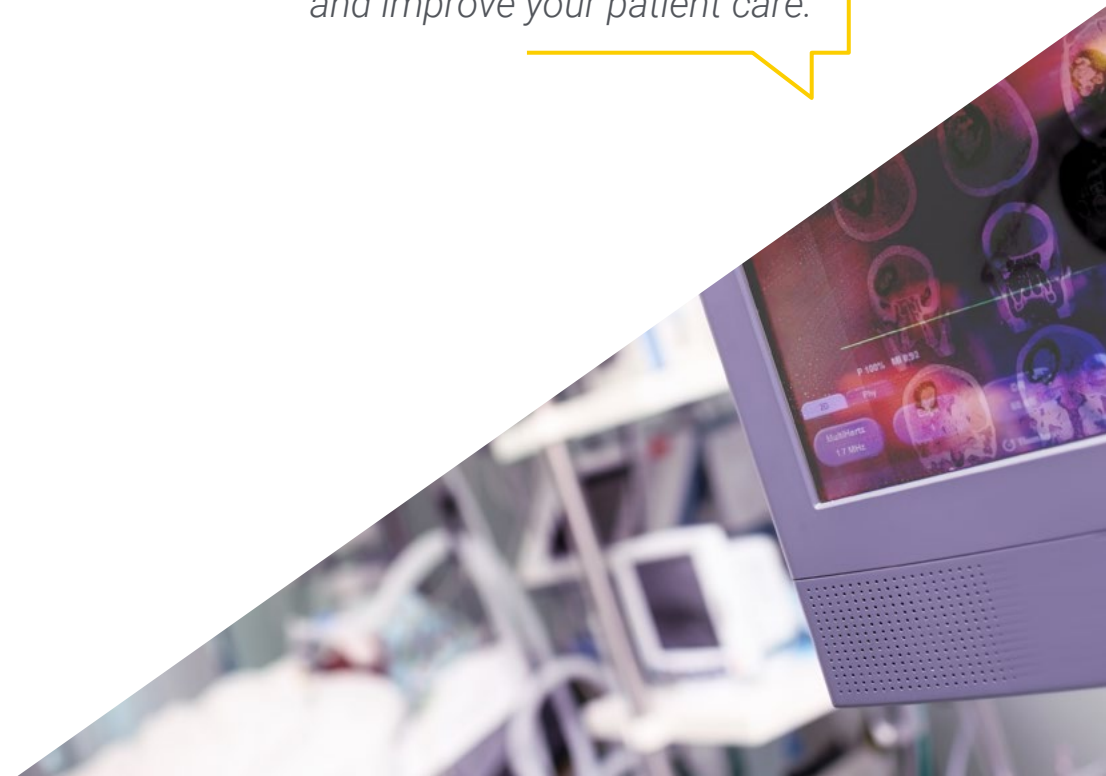
The teaching staff includes professionals from the field of Physiotherapeutic Approach to Complications in Acquired Brain Injury, who bring their experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 an immersive training program to train in real situations.

This program is designed around Problem Based Learning, whereby the student must try to solve the different professional practice situations that arise during the academic program. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of Physiotherapeutic Approach to Complications in Acquired Brain Injury with extensive teaching experience.

*Increase your decision making confidence by updating your knowledge with this University Expert course.*

*Make the most of the opportunity to learn about the latest advances in the Physiotherapeutic Approach to Complications in Acquired Brain Injury and improve your patient care.*



# 02 Objectives

The program in Physiotherapeutic Approach to Complications in Acquired Brain Injury is oriented to facilitate the practice of the physiotherapist in their daily work.







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*This program is designed to help you update your knowledge of Physiotherapeutic Approach to Complications in Acquired Brain Injury, with the use of the latest educational technology, to contribute with quality and security to the decision making and monitoring of your students”*



## General Objectives

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- Enable specialization of the physiotherapist in the field of neurological rehabilitation
- Update the knowledge of the physiotherapist in Neuroscience applied in the clinic
- Enhance clinical practice that is based on scientific evidence and clinical reasoning
- Facilitate the integral care of the neurological patient in all their complexity





## Specific Objectives

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### Module 1. ABI

- ♦ Recognize what is and what is not ABI
- ♦ Identify different symptoms and syndromes according to the area affected by the ABI
- ♦ Learn to identify hemineglect and understand its implications for the patient and for the therapeutic approach
- ♦ Learn to recognize the pusher syndrome and gain up to date knowledge about it in view of its implications in the therapeutic approach
- ♦ Understand the difference between cerebellar versus basal ganglia symptomatology
- ♦ Distinguish spasticity from other tone disturbances
- ♦ Recognize apraxia and its implications for the patient and for the therapeutic approach
- ♦ Learn to identify alien hand syndrome

### Module 2. Complications in ABI

- ♦ Revise the most frequent complication of patients with ABI to prevent them or alleviate them
- ♦ Learn to identify pain and how to approach it
- ♦ Identify the factors which provoke shoulder pain, how to prevent it and how to approach it once it appears
- ♦ Recognize respiratory complications and know their approach from a physiotherapy point of view
- ♦ Learn to identify the signs and symptoms of complications that must be referred to other professionals

### Module 3. ABI in Altered States of Consciousness

- ♦ Review the neurophysiology of consciousness
- ♦ Learn to evaluate the grade of alteration of consciousness
- ♦ Learn to estimate a prognosis based on examination and evolution
- ♦ Identify the appearance of pain in people with altered consciousness
- ♦ Learn to program a physiotherapeutic approach protocol



*Make the most of the opportunity and take the step to get up to date on the latest developments in the Physiotherapeutic Approach to Complications in Acquired Brain Injury”*

03

# Course Management

The program includes in its teaching staff leading specialists in Physiotherapeutic Approach to Complications in Acquired Brain Injury, who bring to this training the experience from their work. In addition, other specialists of recognized prestige participate in its design and elaboration, completing the program in an interdisciplinary manner.





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*Learn about the latest advances in the Physiotherapeutic Approach to Complications in Acquired Brain Injury from renowned professionals”*

## Management



### Ms. De Andrés Garrido, Berta

- Neurophysiotherapist at the Neurological Rehabilitation Center at Neurointegra
- Diploma in Physiotherapy
- Master's Degree in Neurological Physiotherapy of Adults and Children
- Master's Degree in Neurological Physiotherapy

## Professors

### Dr. Rubiño, José Ángel

- ♦ Neuropsychologist
- ♦ PhD in Neuroscience. University of the Balearic Islands

### Ms. Amor Hernández, Paloma

- ♦ Psychologist
- ♦ Currently studying a PhD in Health Psychology from the National University of Remote Education

### Dr. Gómez Soriano, Julio

- ♦ Research Group in Physiotherapy Toledo (GIFTO) University of Castilla La Mancha,
- ♦ Master's Degree in Neurological Pathology and PhD from Rey Juan Carlos University

### Dr. Bravo, Elisabeth

- ♦ Associate PhD Professor
- ♦ University School of Nursing and Physiotherapy of Toledo Castilla La Mancha University

### Mr. Ruiz García, Pablo

- ♦ Physiotherapist in ADACEA Alicante
- ♦ Degree in Physiotherapy
- ♦ Master's Degree in Neuro Rehabilitation

**Mr. Pérez Miralles, José Antonio**

- ♦ Physiotherapist in the New Option Association of Acquired Cerebral Damage Valencia
- ♦ Diploma in Physiotherapy
- ♦ Specialist in Neurological Physiotherapy

**Ms. Aguado Caro, Patricia**

- ♦ Carries out her work at the Neurological Rehabilitation Center at Neurointegra
- ♦ Neuropsychologist

**Ms. Narbona González, Natividad**

- ♦ Carries out her work at the Neurological Rehabilitation Center at Neurointegra
- ♦ Neuropsychologist

**Ms. Monís Rufino, Estela**

- ♦ Neurophysiotherapist
- ♦ Neurointegra

**Mr. Montero Leyva, José Luis**

- ♦ Physiotherapy at Beato Fray Leopoldo Residence. Rehabilitation Coordinator

**Mr. Moreno Martínez, Alejandro**

- ♦ Physiotherapy in Pediatrics and Early Care Dry Needling in Myofascial Pain Syndrome
- ♦ Specialist in Orthopedic Manual Therapy
- ♦ Master's Degree in Advanced Manual Physiotherapy
- ♦ Postgraduate Diploma Respiratory Physiotherapy

**Dr. De la Fuente, Rebeca**

- ♦ Attending Physician in the Neurology Unit of the Leon University Care Complex
- ♦ Degree in Medicine from the University of Salamanca
- ♦ Neurology Specialist in Salamanca University Hospital
- ♦ Master's Degree in Neuro immunology from the Autonomous University Madrid

**Dr. Lara, Lidia**

- ♦ Attending Physician in the Neurology Department of León Care Complex
- ♦ Degree in Medicine and Surgery
- ♦ Specialist Degree in Neurology

**Dr. Mendoza González, Lucrecia**

- ♦ Medical 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. Pérez Rodríguez, Mónica**

- ♦ Neuropsychologist in Neurointegra
- ♦ Psychologist
- ♦ Master's Degree in Advanced Studies of the Brain and Behavior
- ♦ Master's Degree in General Health Psychology
- ♦ Specialist in Neuropsychology

**Mr. Díez, Óscar**

- ♦ Clinical Manager in Neurem Functional Recovery SCP
- ♦ Physiotherapist

05

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best educational centers, universities, and companies in the national territory, aware of the relevance of current specialization in order to intervene in the training and support of students, and who are committed to quality teaching through new educational technologies.







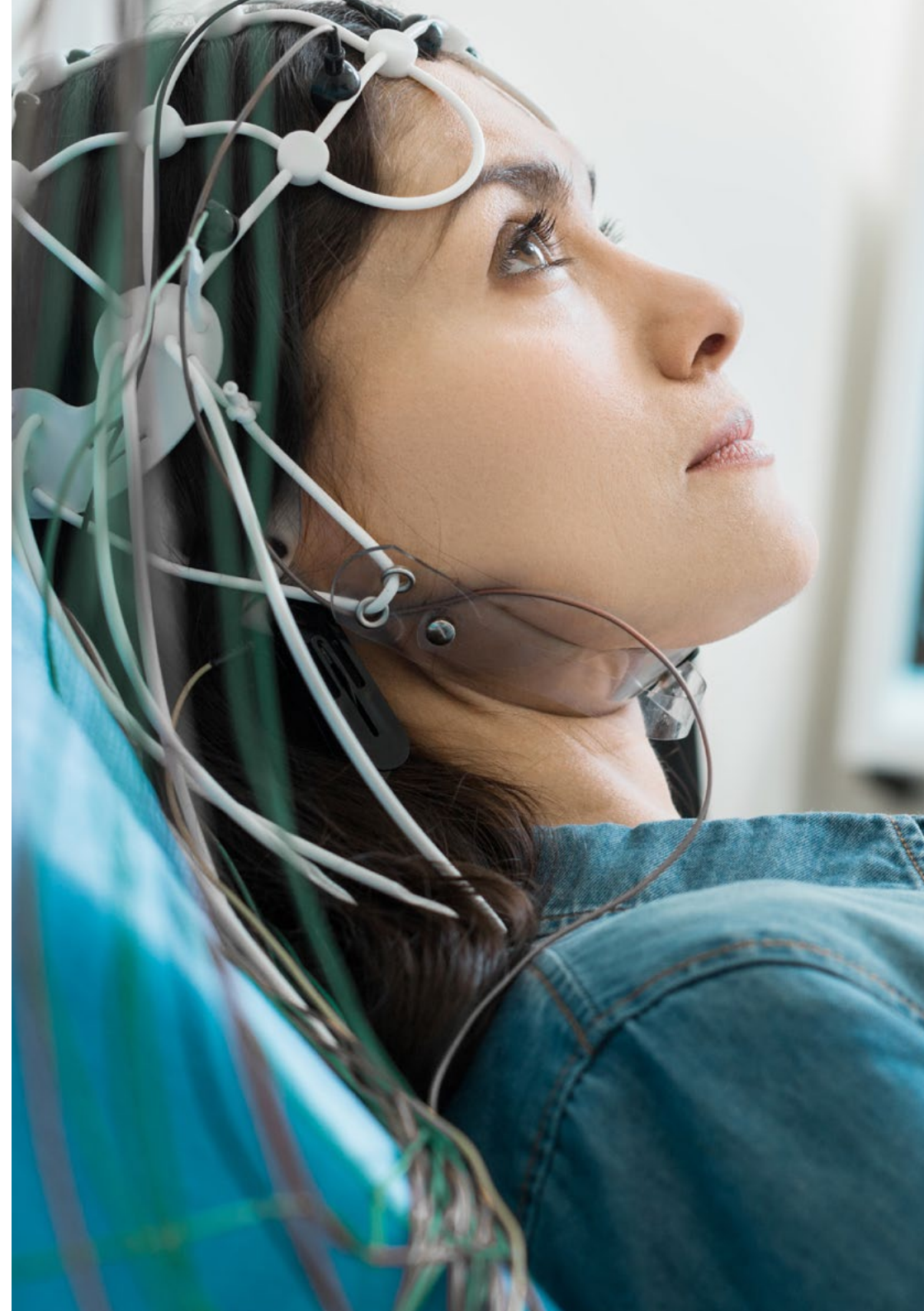
*This Postgraduate Diploma in Physiotherapeutic Approach to Complications in Acquired Brain Injury contains the most complete and up to date scientific program on the market”*

## Module 1. ABI

- 1.1. What Is It?
  - 1.1.1. ABI in Adults
  - 1.1.2. ABI in Childhood
  - 1.1.3. ABI in Elderly People
- 1.2. Functional Alterations
  - 1.2.1. Tone Alterations
  - 1.2.2. Hemineglect
  - 1.2.3. Pusher Syndrome
  - 1.2.4. Cerebellar Syndrome vs. Basal Ganglia Injury
  - 1.2.5. Alien Hand Syndrome
  - 1.2.6. Apraxia

## Module 2. Complications in Patients with ABI

- 2.1. Pain
  - 2.1.1. Painful Shoulder
  - 2.1.2. Neuropathic Pain
- 2.2. Respiratory System
  - 2.2.1. Respiratory Physiotherapy
- 2.3. Epilepsy
  - 2.3.1. Injury Prevention
  - 2.3.2. Injury Recovery
- 2.4. Musculoskeletal Complications
- 2.5. Complications of Spinal Cord Injury



### Module 3. ABI in Altered States of Consciousness

- 3.1. What is an Altered State of Consciousness?
  - 3.1.1. *Arousal and Awareness*
  - 3.1.2. Neuroanatomy and Neurophysiology
  - 3.1.3. Neuroplasticity and Prognosis
- 3.2. Evaluation
  - 3.2.1. Physical Exploration
  - 3.2.2. Neurological Assessment Scales
  - 3.2.3. Pain
- 3.3. Intervention
  - 3.3.1. Physiotherapy
    - 3.3.1.1. Stimulation
    - 3.3.1.2. Movement
    - 3.3.1.3. Environment
  - 3.3.2. Equipment

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

# 05 Methodology

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

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



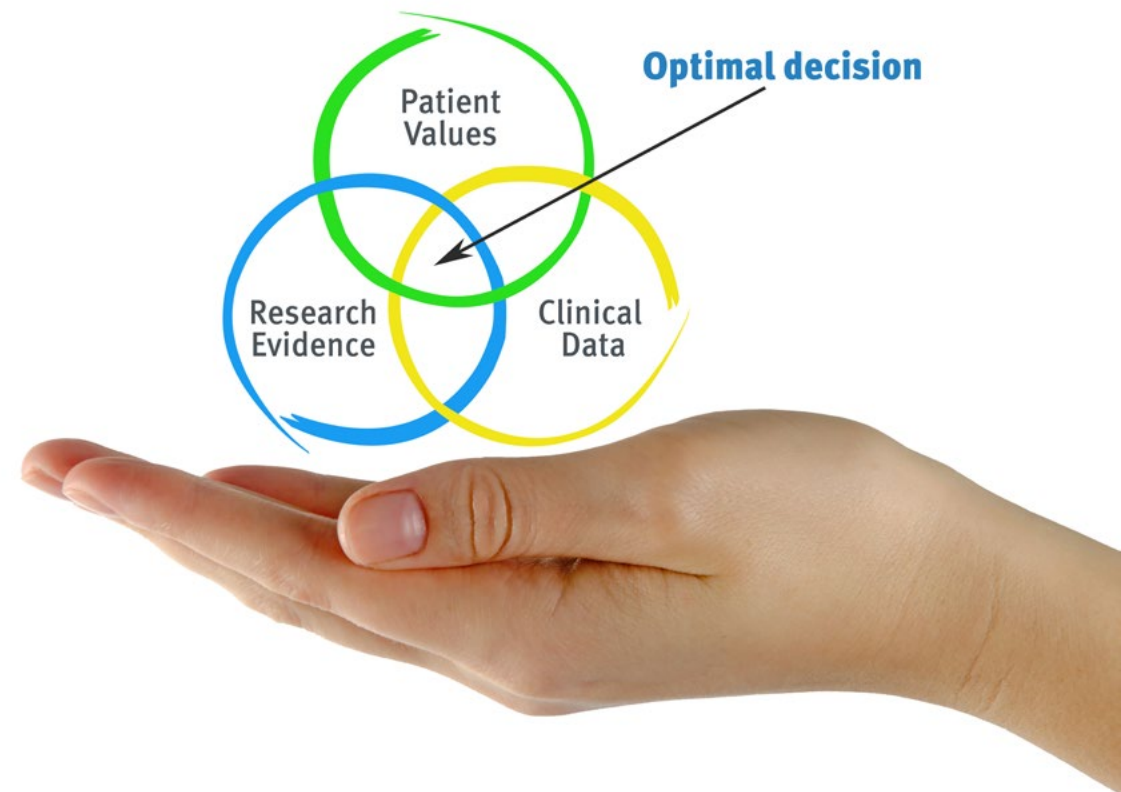


*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

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

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



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

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

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

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



## Relearning Methodology

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

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



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



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

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

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

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

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



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



#### Study Material

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

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



#### Physiotherapy Techniques and Procedures on Video

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



#### Interactive Summaries

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

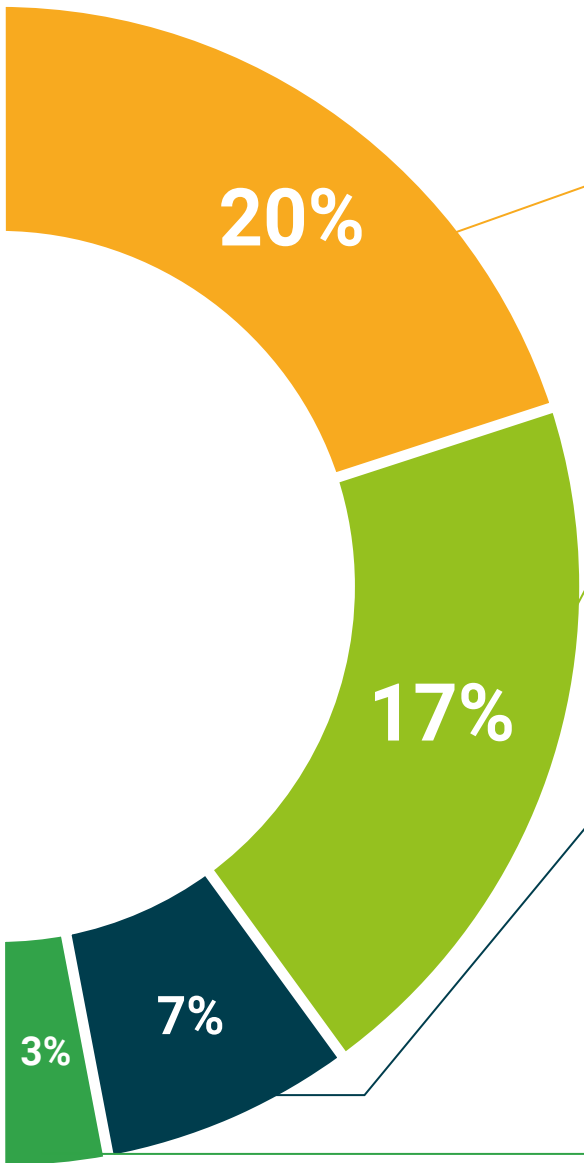
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

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





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

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



#### Testing & Retesting

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



#### Classes

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



#### Quick Action Guides

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



# 06 Certificate

The Postgraduate Diploma in the Physiotherapeutic Approach to Complications in Acquired Brain Injury guarantees you, in addition to the most rigorous and up to date training, access to a Postgraduate Diploma issued by TECH Technological University.



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*Successfully complete this program and receive your university qualification without the hassle of travel or paperwork”*

This **Postgraduate Diploma in Physiotherapeutic Approach to Complications in Acquired Brain Injury** contains the most complete and up to date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

**Title: Postgraduate Diploma in Physiotherapeutic Approach to Complications in Acquired Brain Injury**

Official N° of hours: 525 h.

Endorsed by the NBA



\*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.

health future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online treatment  
development languages  
virtual classroom



**Postgraduate Diploma**  
Physiotherapeutic  
Approach to Complications  
in Acquired Brain Injury

- » Modality: **online**
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# Postgraduate Diploma

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