

# Postgraduate Certificate

Acquired Brain Injury in Altered  
States of Consciousness for  
the Rehabilitation Physician



## Postgraduate Certificate

### Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 7 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: <https://www.techtitude.com/us/medicine/postgraduate-certificate/acquired-brain-injury-altered-states-consciousness-rehabilitation-physician>

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

Altered states of consciousness require a specific approach in the treatment of acquired brain injury. The increase in the incidence of Acquired Brain Injury (ABI), especially stroke, and its survival, make neurorehabilitation and physiotherapy an indispensable element, since stroke is currently the leading cause of disability.

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



“

*This Postgraduate Certificate in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician will a sense of confidence within your profession, which will help you to grow personally and professionally”*

Altered states of consciousness require a specific approach in the treatment of acquired brain injury. The increase in the incidence of Acquired Brain Injury (ABI), especially stroke, and its survival, make neurorehabilitation and physiotherapy an indispensable element, since stroke is currently the leading cause of disability.

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

In addition, we are living in an era of great advances in the field of Neuroscience, as well as Physiotherapy as a science, which forces us to have to update our knowledge both of 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 Certificate aims to be a compilation of the most up-to-date evidence and scientific knowledge about the nervous system and its rehabilitation when it is injured in a supervening way. As a result, it is a program capable of specializing the rehabilitation physician who has never dealt with people with ACD and, nevertheless, is interested in having his or her professional future related to this type of patient.

Likewise, the professional who is already a Rehabilitation Physician, whether or not they are dealing with ACD, will find a space to update their knowledge and become highly specialized in this group of patients.

On the other hand, by understanding so much information about Neuroscience and functionality, it can be a useful tool for the Rehabilitation Physician who needs to know the ins and outs of the nervous system to better understand and address the injury or therapeutic need in a general way.

This **Postgraduate Certificate in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in Acquired Brain Injury injury in Altered States of Consciousness
- ♦ The graphic, schematic, and practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Latest innovations on Acquired Brain the approach to Injury in Altered States of Consciousness for Rehabilitation Physicians
- ♦ It contains practical exercises where the self-assessment process can be carried out to improve learning
- ♦ With special emphasis on innovative methodologies in the Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician
- ♦ 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 through the Postgraduate Certificate program in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician"*

“

*This Postgraduate is the best investment you can make for two reasons: in addition to updating your knowledge in Acquired Brain Injury in Pediatrics for the Rehabilitation Physician, you will obtain a Postgraduate Certificate from TECH"*

The teaching staff includes professionals from the field of Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician, who bring their experience to this training program, as well as renowned specialists from leading scientific societies.

Thanks to its multimedia content developed with the latest educational technology, they will allow the professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive learning programmed to prepare in real situations.

This program is designed around Problem-Based Learning, whereby the students must try to solve the different professional practice situations that arise throughout the program Academic. For this purpose, the physician will be assisted by an innovative interactive video system developed by renowned experts in the field of Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician with extensive teaching experience.

*Increase your decision-making confidence by updating your knowledge through this Postgraduate Certificate.*

*Take the opportunity to learn about the latest advances in Acquired Cerebral Damage in Altered States of Consciousness for the Rehabilitation Physician.*



02

# Objectives

The Program in Approach to complications in acquired brain injury in altered states of consciousness, for the Rehabilitation Physician is oriented to facilitate the performance of the Rehabilitation Physician in his daily practice.





A close-up photograph of a person's hand pointing their index finger towards the left side of the frame. The background is a bright, slightly blurred white surface. The image is partially obscured by a diagonal white line that separates it from a blue background on the right.

“

*Our goal is yours: to provide you with the best online update program in this area of the teaching market. A unique Postgraduate Certificate that will push you to the forefront of your industry”*



## General Objectives

---

- Learn to locate the different anatomical structures of the region
- Identify pathologies to ensure correct ultrasound guided physiotherapy treatment
- Define the limits of ultrasound
- Learning the use of ultrasound in the context of the competences of the Rehabilitation Physician

“

*High training objectives in a training created to train the best professionals in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician”*





## Specific Objectives

---

- ♦ Review the neurophysiology of consciousness
- ♦ Learn to assess 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

03

# Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.



“

*An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed”*

## International Guest Director

Dr. David Lin is an internationally renowned neurologist, specializing in Intensive Care and Neurorehabilitation. As such, his clinical practice focuses on the treatment of patients with acute neurological injuries, including Stroke, Cerebral Hemorrhage, Head Trauma and Spinal Cord Injury, providing a comprehensive approach to the recovery of these patients in the Neurosciences Intensive Care Unit at Massachusetts General Hospital, USA, where he has held a senior position as Director of the Neurorehabilitation Clinic.

In the field of research, he has served as Director of the Translational Recovery Laboratory, where he has employed advanced techniques such as Quantitative Movement Analysis, Neuroimaging and Brain Stimulation to understand and improve motor recovery after a stroke. In fact, his work has been oriented towards the clinical application of these discoveries, seeking to transform Neurological Rehabilitation through a deeper understanding of the brain mechanisms involved.

In addition, David Lin, M.D., has been recognized for his clinical innovations, including the development of the Outpatient Stroke Motor Recovery Program and a follow-up program for patients with post-Covid-19 neurological complications. He has also established an interdisciplinary outpatient program, which integrates various health professionals to provide comprehensive care for patients with acute neurological diseases.

Likewise, his work has been highlighted in international conferences, such as the International Spring School of BCI and Neurotechnology, in Austria, where he has shared his knowledge on the clinical relevance of brain-computer interfaces for stroke rehabilitation. At the same time, he has continued to advance in the field of Neurorehabilitation, with innovative projects such as the design of next generation neurotechnologies, including an Orthotic Arm System based on brain-computer interfaces, in collaboration with the Laboratory of Restorative Neurotechnology (BrainGate).



## Dr. Lin, David

---

- Director of the Neurological Recovery Clinic at Massachusetts General Hospital, USA
- Director of the Translational Recovery Laboratory at Massachusetts General Hospital
- Principal Investigator at Providence Veterans Affairs Medical Center, Providence, VA
- Fellow in Neurocritical Care at Massachusetts General Hospital and Brigham and Women's Hospital
- Neurorecovery Fellow at Massachusetts General Hospital and Spaulding Rehabilitation Hospital
- Fellow in Neurology at Massachusetts General Hospital and Brigham and Women's Hospital
- M.D. Harvard University
- B.S. in Mathematics and Computer Science from Stanford University
- Member of: American Academy of Neurology, Society for Neuroscience, American Heart Association  
American Society of Neurorehabilitation

“

*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Ms. De Andrés Garrido, Berta

- ◆ Coordinator of the Physiotherapy area at Neurointegra
- ◆ Coordinator of the Neurophysiotherapy Study Section of the Spanish Society of Neurology
- ◆ Neurophysiotherapist at the Neurological Rehabilitation Center Neurointegra
- ◆ Responsible for Training at Neurointegra Neurological Rehabilitation Center
- ◆ Postgraduate Studies in Physiotherapy for Acquired Brain Injury
- ◆ Postgraduate Certificate in Physiotherapy Medicine from the Alfonso X El Sabio University from Madrid
- ◆ Master's Degree in in the Approach Neurological Physiotherapy in Children and Adults at the University of Murcia
- ◆ Master's Degree in Neurological Physiotherapy from the Pablo Olavide University

## Professors

### Mr. Pérez Miralles, José Antonio

- ◆ Physiotherapist in the New Option Association of Acquired Cerebral Damage Valencia
- ◆ Associate Doctor to the Faculty of Physiotherapy of the University of Valencia
- ◆ Diploma in Physiotherapy University of Valencia
- ◆ Specialist in Neurological Physiotherapy





# 04

# Structure and Content

A tailor-made program that is taught in a 100% online format, so you can choose the time and place that best suits your availability, schedule and interests.

Throughout this program, you will go through a complete and well-structured agenda that will allow you to know each and every one of the essential aspects for your work. A stimulating experience that will lay the foundation for your success.



“

*This Postgraduate Certificate in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician contains the most complete and up-to-date scientific program on the market”*

## Module 1. ABI in Altered States of Consciousness

- 1.1. What is an Altered State of Consciousness?
  - 1.1.1. Arousal
  - 1.1.2. Awareness
  - 1.1.3. Neuroanatomy
  - 1.1.4. Neurophysiology
  - 1.1.5. Neuroplasticity
  - 1.1.6. Prognosis
- 1.2. Assessment
  - 1.2.1. Physical Examination
  - 1.2.2. Neurological Assessment Scales
  - 1.2.3. Pain
- 1.3. Intervention
  - 1.3.1. Physiotherapy
    - 1.3.1.1. Stimulation
    - 1.3.1.2. Movement
    - 1.3.1.3. Environment





“

*A unique, key, and decisive educational 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. Specialists 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. Gervas, 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 in the physician's professional 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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

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

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

*Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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 TECH's 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 highly 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.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. 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 the videos as many times as you like.



#### 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 exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

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





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

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



#### Testing & Retesting

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



#### Classes

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



#### Quick Action Guides

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



06

# Certificate

The Postgraduate Certificate in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician**

Modality: **online**

Duration: **6 weeks**

Accreditation: **7 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.





## Postgraduate Certificate

Acquired Brain Injury in Altered States of Consciousness for the Rehabilitation Physician

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 7 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

Acquired Brain Injury in Altered  
States of Consciousness for  
the Rehabilitation Physician