

Physical Neuroeducation and Learning

Endorsed by the NBA







# Postgraduate Certificate

# Physical Neuroeducation and Learning

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

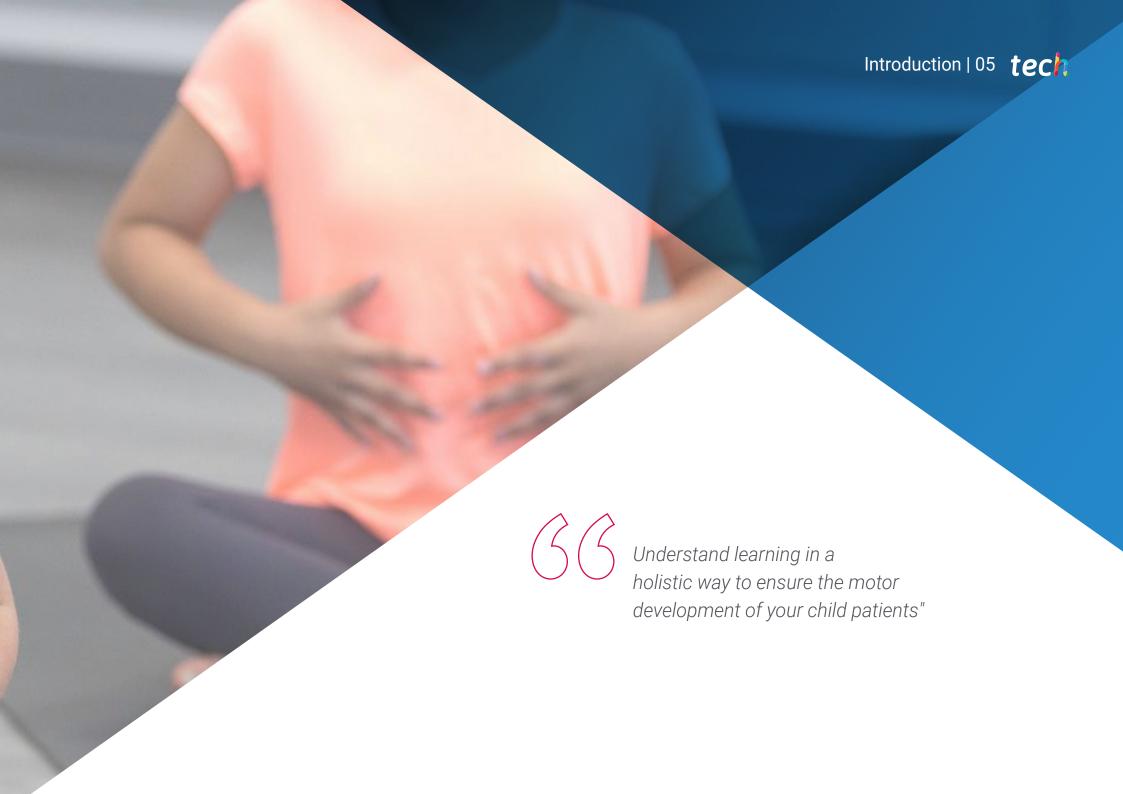
Website: www.techtitute.com/us/physiotherapy/postgraduate-certificate/physical-neuroeducation-learning

# Index

 $\begin{array}{c|c} 01 & 02 \\ \hline & \\ \hline \\ 03 & 04 \\ \hline \\ \hline \\ \hline \\ course Management \\ \hline \\ \hline \\ \\ \hline \\ p. 12 \\ \hline \end{array}$ 

06 Certificate





# tech 06 | Introduction

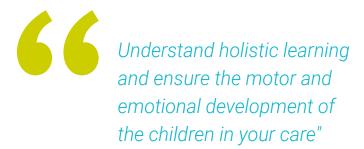
Since the development of neuroeducation a few years ago, it has been consolidated as a discipline that studies the interaction of the environment in the learning process of the brain. In this way, it has become a new educational approach that encompasses different fields of knowledge. For physical therapists, it helps them learn about the importance of the external environment with motor development and mental health.

For all these reasons, the program was created around Physical Neuroeducation and Learning. This helps professionals to implement strategies for disease prevention and quality of life improvement in terms of cardiovascular and other risk diseases.

All the content is available in a 100% online Postgraduate Certificate that gives students the ease of being able to study it comfortably, wherever and whenever they want. Students will only need a device with internet access to take their career one step further. A modality according to the current times with all the guarantees to position professionals in a highly demanded sector.

This **Postgraduate Certificate in Physical Neuroeducation and Learning** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- Practical cases presented by experts in Neuroeducation
- 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
- Practical exercises where self-assessment can be used to improve learning.
- Its special emphasis on innovative methodologies
- 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





Stay at the forefront of your profession and acquire the knowledge that will help you position yourself as an expert in child development"

This Postgraduate Certificate has the best educational material based on the latest scientific developments on the subject.

Understand the importance of physical activity in children's development and learning.

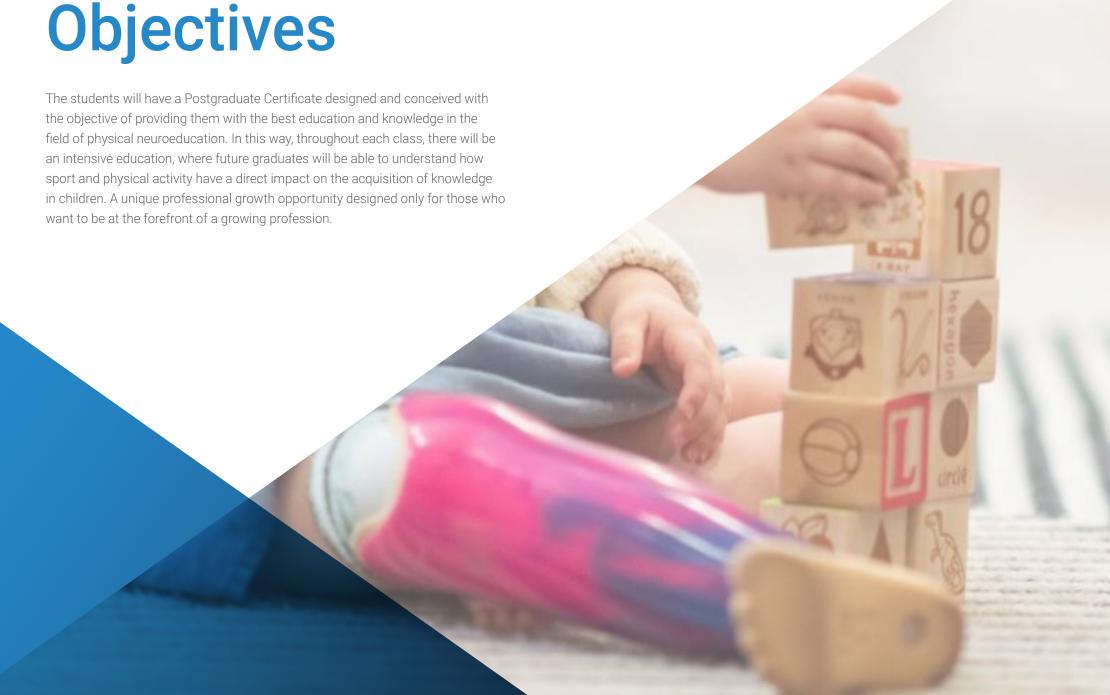
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that are presented to them throughout the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.









# tech 10 | Objectives



# **General Objective**

• Implementing the innovations of Neuroeducation in the subject of physical education



Specialize by following a program designed to boost your professional career"



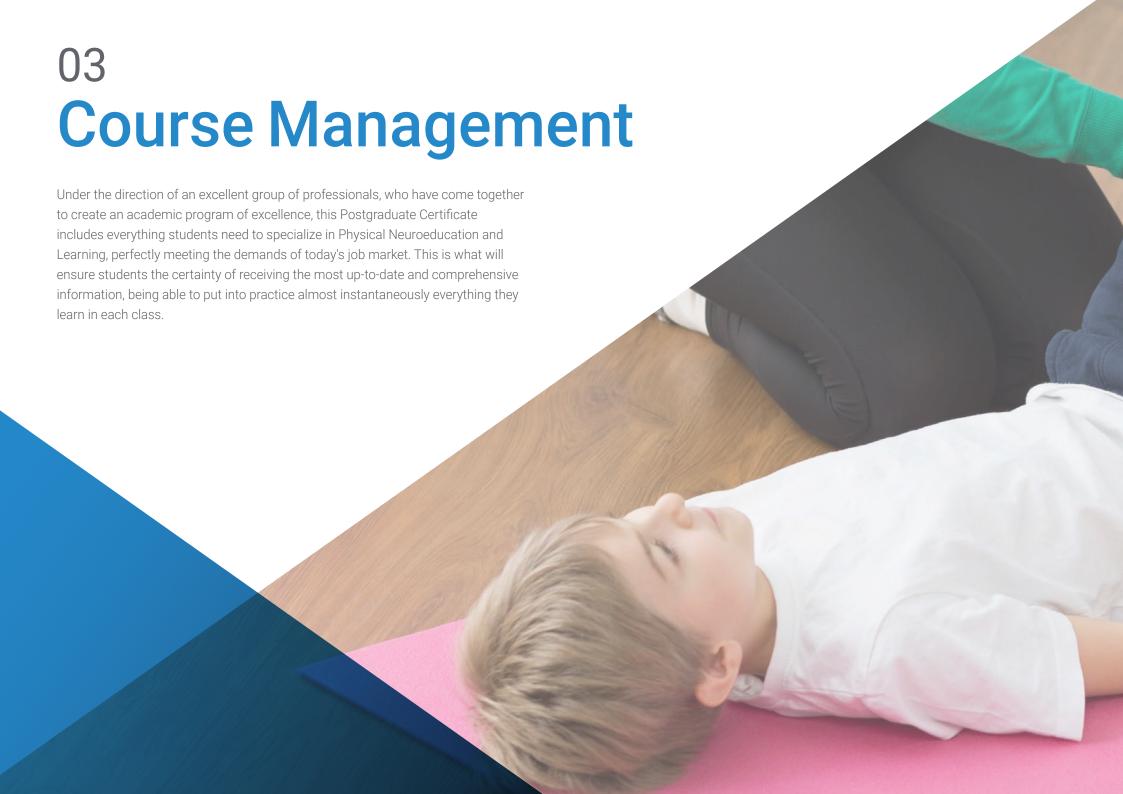


# Objectives | 11 tech



# **Specific Objectives**

- Explain the relevance of body-brain language together with embodied cognition
- Establish the importance of mental health with exercise
- Explain the development of cognitive functions through the practice of physical exercise
- Know the positive influence of motor skills in students with learning difficulties





# tech 14 | Course Management

#### Management



#### Ms. Pellicer Royo, Irene

- Degree in Physical Activity and Sports Science Master's Degree in Medical Sciences applied to Physical Activity and Sport
- Certificate in Management and Administration of Sports Entities
- Master's Degree in Emotional Education and Well-being
- Postgraduate in Neuroeducation Learning to our full potential

#### **Professors**

#### Dr. De la Serna, Juan Moisés

- Doctor in Psychology Master's Degree in Neurosciences and Behavioral Biology
- Director of the Open Chair of Psychology and Neurosciences and science communicator
- University Expert in Didactic Methodology
- University Specialist in Clinical Hypnosis
- Expert in Project Management Occupational Trainer

#### Dr. Navarro Ardoy, Daniel

- PhD. Applied Health Exercise Physiology
- Physical Activity and Health Program. Faculty of Medicine
- 6-month research stay at Karolinska Institute Stockholm (Sweden)
- Degree in Physical Activity and Sports Science

#### Ms. Rodríguez Ruiz, Celia

- Graduate in Pedagogy. Degree in Psychology
- Specialization in clinical psychology and child psychotherapy
- Specialization in Cognitive Behavioral Therapy in Childhood and Adolescence







## tech 18 | Structure and Content

#### Module 1. Physical Neuroeducation and Learning

- 1.1. Body-Brain Language and Embodied Cognition
  - 1.1.1. Conceptualization of Embodied Cognition
  - 1.1.2. Intelligent Behavior Based on Body-Brain-Environment Interaction
- 1.2. Mental Health and Exercise.
  - 1.2.1. What is Meant by Mental Health in this Context?
  - 1.2.2. The Evolutionary Purpose of Motor Action
  - 1.2.3. What if Movement Improved Brain Functioning?
- 1.3. Brain Development Through Physical Exercise
  - 1.3.1. Hippocampus and Basal Ganglia in Relation to Exercise
  - 1.3.2. The Development of the Prefrontal Cortex and Other Brain Structures due to Physical Exercise
- 1.4. Executive Attention and Exercise.
  - 1.4.1. The Cognitive Function of Attention
  - 1.4.2. Relationship Between Attention and Exercise
  - 1.4.3. Enhancing Attention
- 1.5. Working Memory in Motor Action.
  - 1.5.1. The Cognitive Function of Memory
  - 1.5.2. Working Memory
  - 1.5.3. Relationship Between Memory and Motor Action
  - 1.5.4. Enhancing Memory
- 1.6. Improvement of Cognitive Performance derived from Motor Action.
  - 1.6.1. Motor Action-Behavior Relationship
  - 1.6.2. Motor Action-Brain Health Relationship
- 1.7. Academic Results and their Relationship to Physical Practice.
  - 1.7.1. Academic Improvements as a Consequence of Motor Action
  - 1.7.2. Specific Interventions
  - 1.7.3. Prolonged Interventions
  - 1.7.4. Conclusions
- 1.8. Positive Influence of Motor Skills on Students with Learning Difficulties.
  - 1.8.1. The Brain in Special Educational Needs
  - 1.8.2. Attention Deficit Hyperactivity Disorder and Motor Action
  - 1.8.3. Specific Proposals for Motor Action





## Structure and Content | 19 tech

- 1.9. Pleasure, a Fundamental Element in Physical Neuroeducation
  - 1.9.1. Pleasure Systems in the Brain
  - 1.9.2. Relationship Between Pleasure and Learning
- 1.10. General Recommendations for the Implementation of Teaching Proposals.
  - 1.10.1. The Coherence of Action-Research
  - 1.10.2. Concrete Example of an Action-Research Proposal in Physical Neuroeducation
  - 1.10.3. Phases of the Working Process
  - 1.10.4. Criteria, Techniques and Strategies for the Collection of Information
  - 1.10.5. Approximate Schedule of the Planned Phases

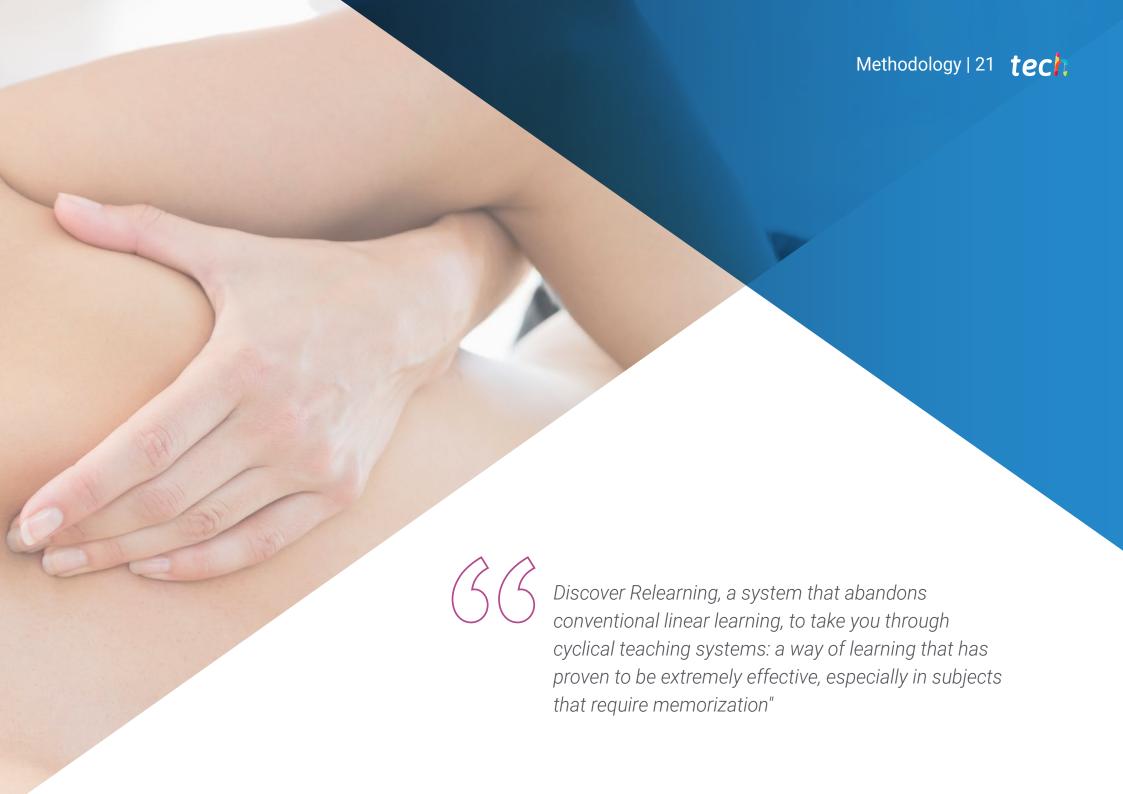


TECH motivates you to go beyond, that's why it will help you to take a University Course with the guarantees of fulfilling a professional profile at an international level"



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

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

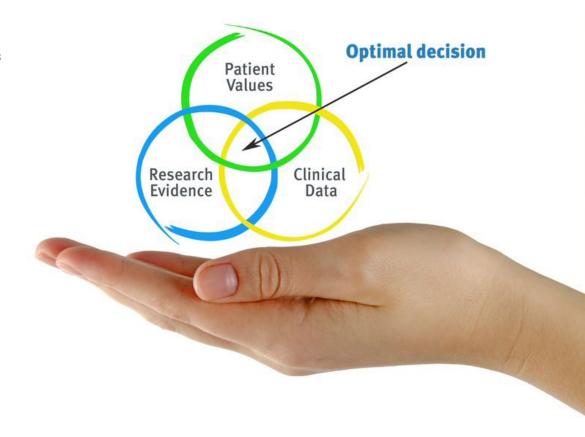


# tech 22 | Methodology

#### At TECH we use the Case Method

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

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



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



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

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

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





#### **Relearning Methodology**

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

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

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



### Methodology | 25 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.

# tech 26 | Methodology

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.



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.

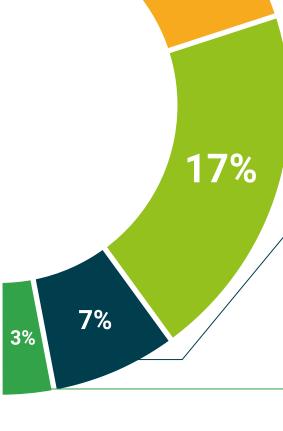
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.





20%





# tech 30 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Physical Neuroeducation** and **Learning** 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 Physical Neuroeducation and Learning

Modality: **online** 

Duration: 6 weeks

Accreditation: 6 ECTS



Mr./Ms. \_\_\_\_\_, with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

#### Postgraduate Certificate in Physical Neuroeducation and Learning

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



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

health people information guarantee at technology aniversity

# Postgraduate Certificate Physical Neuroeducation and Learning

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

# Postgraduate Certificate

Physical Neuroeducation and Learning

