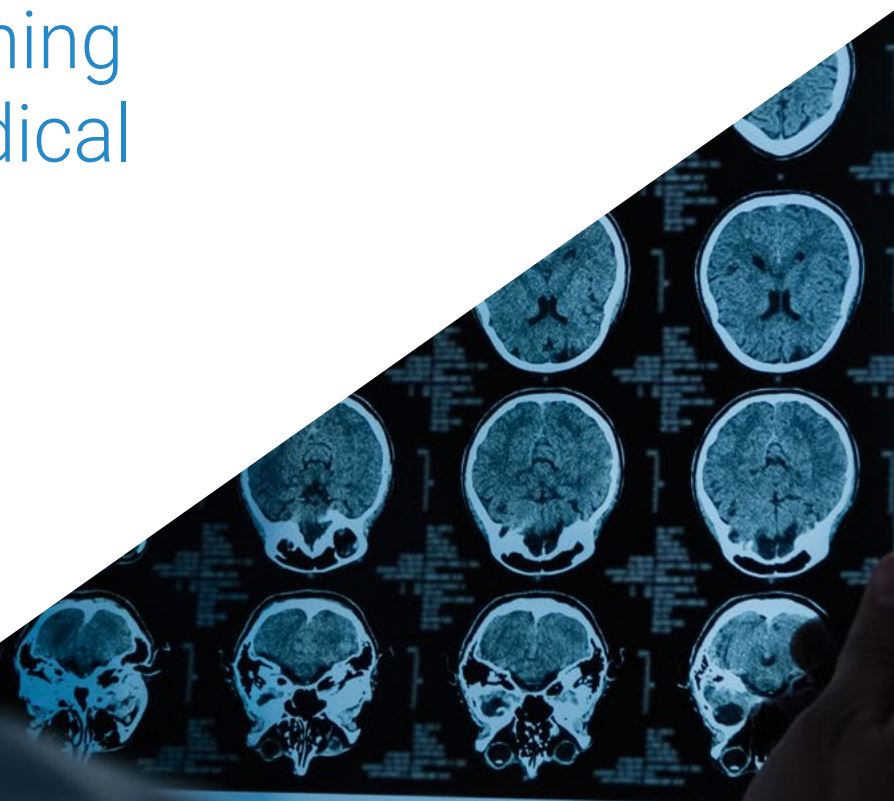


# Postgraduate Diploma

Motor Action in the Brain  
Processes of Learning  
for Physicians Medical





## Postgraduate Diploma Motor Action in the Brain Processes of Learning for Physicians Medical

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

Website: [www.techtitute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-motor-action-brain-processes-learning-physicians-medical](http://www.techtitute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-motor-action-brain-processes-learning-physicians-medical)

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# 01

# Introduction

People manifest, express and transmit ourselves through our bodies and, for these actions to develop correctly, human motor skills play a fundamental role. Therefore, during this program the physician will learn to understand how motor action has a direct impact on the learning processes of individuals, and what are the best neuro-strategies at a didactic level to encourage these processes to be carried out optimally. All of this is based on the most complete syllabus on the market and the best teaching methodology.





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*Human motor skills cannot be understood as a linear process. Instead, it is an open process where there is room for expressions, creativity, emotions or rationality”*

In recent times, neuroscience has become a revolutionary way of understanding almost all fields of human development. Its logic is indisputable: the brain, moderator, organizer and creator of every human development holds the keys to these processes. New scientific procedures for brain exploration have opened the door to a deeper understanding of all these cognitive processes.

In this scenario, medicine plays a decisive role and is one of the sciences that has collaborated most in the advances made in recent years, taking a leap towards a new way of understanding this discipline. In the new approach, neuroscience is taken in a global way that allows the physician to get to know the patient by taking into account all areas of personal development.

Therefore, it is necessary to train health professionals in all aspects of neuropsychoeeducation: understanding the brain mechanisms underlying learning, memory, language, sensory and motor systems, attention, emotions and the influence of the environment on all of these.

Science has advanced in the study of the brain as a learning organ in order to help each patient develop his or her intellectual and emotional cognitive potential to the fullest. Although current medicine aims at a comprehensive process, it is still focused on the cognitive, with little development in terms of the emotional; little and/or no management of one's own and others' emotions, little self-motivation, self-control, communication skills.

At this point, the study of Neuroeducation, motor practices and brain development become a powerful way of working. Learning in motion can be a powerful example of motor learning.

Taking into account these premises, this Postgraduate Diploma aims to expand the benefits that can be offered to the patient in relation to the improvement of motor action and, thus, to the improvement of his life at an integral level (emotionality, creativity, reasoning...). To do so, it starts from the new knowledge of brain science to focus, in a practical way, on how to implement it in daily clinical practice.

This **Postgraduate Diploma in Motor Action in the Brain Processes of Learning for Physicians Medical** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Development of more than 75 case studies presented by experts in Neuroeducation and Medicine
- ◆ 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
- ◆ It contains practical exercises where the self-evaluation process can be carried out to improve learning
- ◆ With special emphasis on innovative methodologies in Neuroeducation and Medicine
- ◆ All 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
- ◆ Complementary content available in multimedia format



*Everything related to motor action as a driver of cognitive, emotional and personal development processes, condensed in an Postgraduate Diploma with excellent curricular value"*



*Take a leap forward in your professional career and improve your practice as a physician by studying this program”*

This program includes in its teaching staff professionals belonging to the field of Neuroeducation and Physical Education, who bring to this program the experience of their work, in addition to recognized specialists belonging to reference societies and prestigious universities.

Thanks to its multimedia content developed with the latest educational technology, it 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.

The design of this program is based on Problem-Based Learning, by means of which the educator must try to solve the different professional practice situations that arise throughout the course. For this, the educator will be assisted by an innovative interactive video system, developed by recognized experts in the field of Neuroeducation and Physical Education with extensive teaching experience.

*Join the new vision of medicine supported by neurosciences and work from a new, more holistic and current perspective.*

*Add to your CV the prestige of a high-level Postgraduate Diploma that will enable you to practice your profession with the support of proven scientific development.*



# 02

# Objectives

The main objective of this comprehensive Postgraduate Diploma is to provide students with the vision and skills necessary to turn the area of medical research into an invaluable tool for the development of integral human well-being. Beyond its potential in physical terms, this Postgraduate Diploma will focus on its capacity to protect the brain, its influence on brain function, emotions, motivation, perception, and ultimately, learning.





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*If your goal is to grow and position yourself as a prestigious physician boasting in-depth knowledge of neuroscience, then this program is for you”*



## General Objectives

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- ◆ To know the basis and main elements in Neuroeducation
- ◆ To integrate the new contributions in Brain Science in teaching-learning processes
- ◆ To discover how to enhance brain development through motor action
- ◆ To implement the innovations in Neuroeducation in the subject of Physical Education
- ◆ To achieve specialized training as Neuroeducation professionals in the field of motor action





## Specific Objectives

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- ◆ To demonstrate how Physical Education can "attract" learners and be an inclusion factor in social equity, a fundamental reason to encourage school/kindergarten attendance
- ◆ To permanently update the National and Jurisdictional Database, with data provided directly from the territory by the stakeholders themselves
- ◆ To coordinate and support the National Thematic Commissions of the area of knowledge
- ◆ To solve motor situations with a diversity of stimuli and spatial-temporal conditioning factors, selecting and combining basic motor skills and adapting them to the established conditions in an efficient way
- ◆ To use the expressive resources of the body and movement in an aesthetic and creative way, communicating sensations, emotions and ideas

03

# Structure and Content

The structure of the contents has been created so that the student is able to acquire all the necessary knowledge in the area of neurosciences applied to medicine. Through a complete syllabus, the different fields of interest that the professional will need to master in the exercise of his profession will , be developed.



“

*Study from the best content and take your career as a physician to the next level”*

### Module 1. The social brain in motor action from a neuroscientific perspective

- 1.1. The Human Being: A Social Being
- 1.2. The Social Brain.
- 1.3. Mirror Neurons
- 1.4. Complex Social Functions
- 1.5. Integral Health from a Social Competence Perspective
- 1.6. Role of Motor Action in Social Health Development
- 1.7. Social Relationship in Personal Well-Being
- 1.8. Mental Health and Interpersonal Relationships
- 1.9. Relevance of Cooperation from a Neuroeducational Perspective
- 1:10. Climate in Learning Environments

### Module 2. Impact of Motor Action on Brain Learning Processes and on Health Development

- 2.1. Impact of Motor Action on Learning Processes
- 2.2. Motor Action and Neurophilic Factors. BDNF
- 2.3. Motor Action, Neurotransmitters and Hormones
- 2.4. The Importance of the Cerebellum in Coordination and Cognitive Processes
- 2.5. Impact of Motor Action on Memory Processes
- 2.6. Prefrontal Cortex, the Seat of the Brain's Executive Functions
- 2.7. Impact of Motor Action with Executive Processes: Decision-Making.
- 2.8. Impact of Motor Action on Executive Processes: Pause and Reflection Response
- 2.9. Motor Action and Predisposition to Learning
- 2:10. Impact of Motor Action on Neuroprotective Processes



**Module 3.** Pedagogical Models and Evaluation in Physical Neuroeducation

- 3.1. Conceptual Approach to Terms Related to Methodology in Physical Education
- 3.2. Assessment of the Teaching-Learning Process in Physical Neuroeducation
- 3.3. Assessment of Student Learning with a Focus on Physical Neuroeducation
- 3.4. Cooperative Learning
- 3.5. Sports Education Model (SEM)
- 3.6. Personal and Social Responsibility Model
- 3.7. Comprehensive Sport Initiation Model (TGfU)
- 3.8. Ludotechnical Model
- 3.9. Adventure Education Model
- 3.10. Other Models

**Module 4.** Methodologies, Methods, Tools and Didactic Strategies favoring Physical Neuroeducation

- 4.1. Flipped Classroom or Inverted Classroom
- 4.2. Problem-Based and Challenge-Based Learning
- 4.3. Project-Based Learning
- 4.4. Case Method and Service Learning
- 4.5. Learning Environments
- 4.6. Motor Creativity or Corporal Synectics
- 4.7. Game-Based Learning
- 4.8. Ludification or Gamification
- 4.9. Other Methods, Tools and Didactic Strategies that Favor Physical Neuroeducation
- 4.10. Methodological Guidelines and Recommendations for the Design of Programs, Units and Sessions Based on Physical Neuroeducation

04

# Methodology

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

This teaching system is used 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.





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*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. 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 in the physician's professional 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. 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.



05

# Certificate

The Postgraduate Diploma in Motor Action in the Brain Processes of Learning for Physicians Medical guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.





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

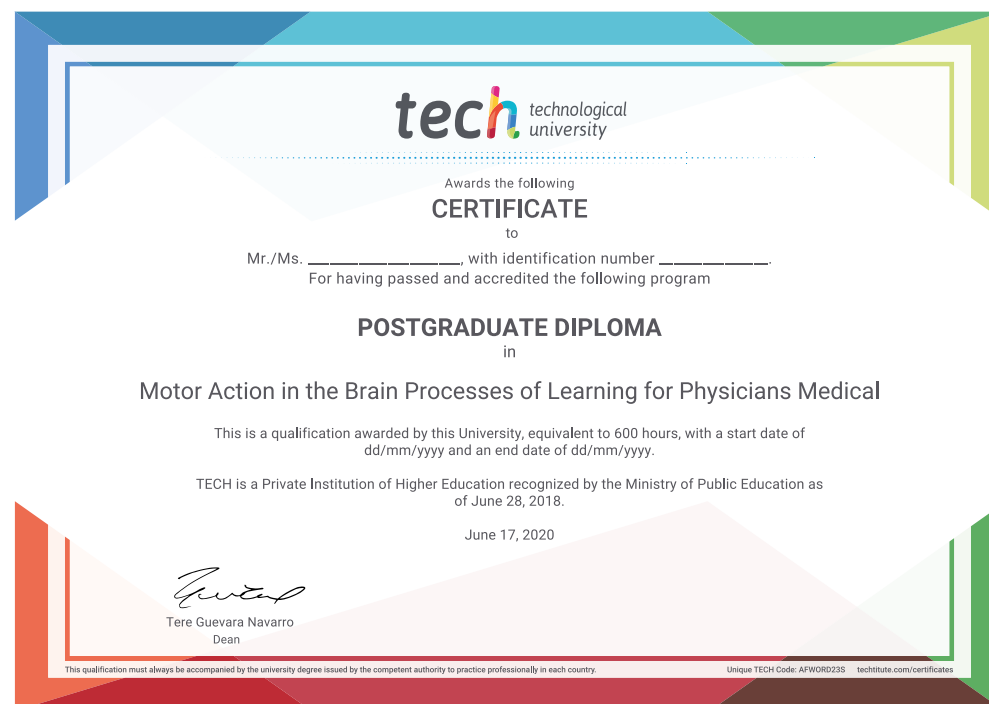
This **Postgraduate Diploma in Motor Action in the Brain Processes of Learning for Physicians Medical** contains the most complete and up-to-date scientific on the market.

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 through the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Motor Action in the Brain Processes of Learning for Physicians Medical**

Official Number of Hours: **600 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.



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