

# Postgraduate Diploma

## Neuroeducation, Motor Tasks and Brain Development in Sport

Endorsed by the NBA



**tech** technological  
university



## Postgraduate Diploma Neuroeducation, Motor Tasks and Brain Development in Sport

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

Website: [www.techtute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-neuroeducation-motor-tasks-brain-development-sport](http://www.techtute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-neuroeducation-motor-tasks-brain-development-sport)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

Physical Education acquires a dimension of extraordinary importance which transcends the also important motor skill development to access the use of movement as a tool for the development and improvement of cognitive functions.





“

*Motor tasks as brain development promoters, from the advanced perspective of neurosciences as applied to teaching, all in a Postgraduate Diploma of high academic value.*

Science has advanced the study of the brain as a learning organ in order to help students develop their cognitive, intellectual and emotional potential to the fullest. Although current education aims to provide comprehensive education, it is still focused on cognitive aspects, with little development in terms of emotional ones; little to no management of one's own and others' emotions, insufficient self-motivation, self-control, and communication skills.

The present Postgraduate Diploma has the purpose of expanding the benefits that can be offered in the subject of physical education to students, from the perspective of sports performance, academic performance, and also in relation to personal development based on physical and emotional well-being. This is based on new knowledge of brain science to focus, in a practical way, on how to implement it in the environment of educational centers.

The prestigious professors of this program have drawn on their specialized and advanced knowledge based on experience and rigorous scientific criteria in the development of this highly scientifically and academically rigorous training.

All modules are accompanied by abundant iconography, with photos and videos by the authors, which are intended to illustrate, in a very practical, rigorous and useful way, advanced knowledge in neuroeducation and physical education for physical therapists.

This **Postgraduate Diploma in Neuroeducation, Motor tasks and Brain Development in Sport** contains the most complete and up-to-date educational program on the market.

The most important features of the program include:

- ◆ Development of case studies presented by experts in Neuroeducation and Physical Education.
- ◆ Its graphic, schematic and eminently practical contents provide scientific and practical information on those 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 Physical Education.
- ◆ 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.
- ◆ Complementary content available in multimedia format.



*With this Postgraduate Diploma you will be able to train in the most specific areas of brain development linked to motor tasks, from the comfort of your own computer.*

“

*The syllabus has been chosen and developed by specialists belonging to leading societies and universities of proven prestige. With the highest quality in the education market.*

It includes in its teaching staff professionals belonging to the field of Neuroeducation and Physical Education, who pour into this training 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 train 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 La practice situations that arise throughout the Posgraduate Diploma. 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.

*Neurosciences at the service of quality education. Take the next step toward your professional future.*

*Specialized training that will give a fresh boost to your CV, putting you at the forefront of the profession.*



# 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 Physical Education into an invaluable tool for the development of integral human well-being. Beyond its potential in physical terms, this Postgraduate Diploma will work on the protective capacity of the brain, its influence on brain function, emotions, motivation, and perception, in short, learning.





“

*Physical Neuroeducation and learning: an unstoppable stimulus in the development of one of the most promising subjects in education.*



## General Objectives

---

- ◆ Know the basis and main elements of Neuroeducation.
- ◆ Integrate the new contributions of Brain Science in the teaching-learning processes.
- ◆ Discover how to enhance brain development through motor action.
- ◆ Implement the innovations of Neuroeducation in the subject of Physical Education.
- ◆ Achieve specialized training as Neuroeducation professionals in the field of motor action.

“

*Study in a comfortable and easy way, with unlimited access from any place and at any time thanks to the most powerful digital platform and the most developed interactive learning systems currently available.*





## Specific Objectives

---

- ◆ Demonstrate how Physical Education can "attract" learners and be an inclusion factor in social equity, a fundamental reason to encourage school/kindergarten attendance.
- ◆ Generate opportunities for teacher exchanges and training, coordinating directors and inspectors to promote higher work quality and efficiency in this institutionalization of School Physical Education.
- ◆ Permanently update the National and Jurisdictional Database, with data provided directly from the territory by the stakeholders themselves. (Director, Coordinators and Inspectors).
- ◆ Produce general guidelines for the Physical Education Area that orient, advise and facilitate the work of Teachers, Coordinating Directors and Inspectors.
- ◆ Coordination and support to the National Thematic Commissions in this area of knowledge.
- ◆ Continue the task of achieving the Universalization of Aquatic Activities.
- ◆ Support the participation of our public schools in different sporting events in order 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 effective manner.
- ◆ Use the expressive resources of the body and movement in an aesthetic and creative way, communicating sensations, emotions and ideas.

03

# Course Management

The design and development of this Postgraduate Diploma has been carried out by a multidisciplinary teaching staff of recognized competence. Aiming for excellence, the course program puts its experience at your disposal to create learning situations that will make you become an expert in the field. With the support of the best specialists in Neuroeducation and Physical Education.



“

*A teaching staff made up of experts selected for their experience and background in the areas of Neuropsychology and Physical Education that will accompany you throughout the most complete syllabus.*

## Management



### Dr. 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 Exercise physiology applied to health
- ◆ Physical Activity and Health Program Faculty of Medicine
- ◆ 6-month research stay at Karolinska Institute Stockholm (Sweden)
- ◆ Degree in Physical Activity and Sports Science

### Dr. Rodríguez Ruiz, Celia

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



# 04

# Structure and Content

The content structure has been created so that students can acquire all the necessary knowledge in the area of neurosciences as applied to Physical Education. Through a complete syllabus, the different areas of interest that the professional will need to master in the exercise of his profession will be developed.





“

*The world's largest Online University, with the most developed teaching software on the market today, at your fingertips.*

## Module 1. Basis of Neurosciences

- 1.1. The Nervous System and Neurons
- 1.2. Basic Anatomy of Learning-Related Structures
- 1.3. Psychological Processes Related to Learning
- 1.4. The Main Brain Structures Related to Motor Skills
- 1.5. The Plastic Brain and Neuroplasticity
- 1.6. Epigenetics
- 1.7. Effects of the Environment on Brain Development
- 1.8. Changes in the Infant's Brain
- 1.9. Evolution of the Adolescent Brain
- 1.10. Adult Brain

## Module 2. Physical Neuroeducation and Learning

- 2.1. Body-Brain Language and Embodied Cognition
- 2.2. Mental Health and Exercise
- 2.3. Development of Cognitive Functions through Physical Exercise
- 2.4. Executive Attention and Exercise
- 2.5. Working Memory in Motor Action
- 2.6. Improvement of Cognitive Performance Derived from Motor Action
- 2.7. Academic Results and Their Relationship to Physical Exercise
- 2.8. Positive Influence of Motor Skills on Students with Learning Difficulties
- 2.9. Pleasure, a Fundamental Element in Physical Neuroeducation
- 2.10. General Recommendations for the Implementation of Didactic Proposals





### Module 3. Motor Tasks that Have an Impact on Brain Development

- 3.1. Body Wisdom
- 3.2. Aerobic Exercise
- 3.3. Anaerobic Exercise
- 3.4. Play
- 3.5. Muscular Strength
- 3.6. Coordination Activities
- 3.7. Relaxation and Meditation Activities
- 3.8. Expressive and Artistic Activities and Brain Development from a Social-economic Perspective
- 3.9. Natural Environment Activities and Brain Development
- 3.10. Global Proposals for Physical Neuroeducation

### Module 4. Invisible Training in Brain Development

- 4.1. Invisible Training Concept
- 4.2. The Role of Main Myokines in Relation to Exercise and Health
- 4.3. Nutrition
- 4.4. Relevance of Sleep in Learning
- 4.5. Active Breaks
- 4.6. Active Breaks
- 4.7. Preventing Harmful Habits
- 4.8. Body Posture from a Neuroscientific Perspective
- 4.9. Preventing Illness and Improving Quality of Life in Cardiovascular Risk Diseases (Obesity, Diabetes or Metabolic Syndrome)
- 4.10. Preventing Illness and Improving Quality of Life from Physical Exercise at a Mental Level (Alzheimer's, Parkinson's, etc.)
- 4.11. Prevention and Amelioration of Carcinogenic Processes due to Motor Action

# 05 Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: **Re-learning**.

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 Re-learning, 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

Our program offers a revolutionary method of skills and knowledge development. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

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



*Our university is the first in the world to combine Harvard Business School case studies with a 100%-online learning system based on repetition.*



### A learning method that is different and innovative.

This intensive Sports Science program at TECH Technological University prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at , TECH you will use Harvard *case studies*, with which we have a strategic agreement that allows us to provide our students with material from the best university the world.

“ We are the only online university that offers Harvard materials as teaching materials on its courses.

*The student will learn, through collaborative activities and real cases, how to solve complex situations in real business environments.*

The case method is the most widely used learning system by the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## Re-learning Methodology

Our university is the first in the world to combine Harvard University case studies with a 100%-online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance Harvard case studies with the best 100% online teaching method: Re-learning.

*In 2019 we obtained the best learning results of all Spanish-language online universities in the world.*

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Re-learning.

Our university is the only one in the world licensed to incorporate this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best Spanish online university indicators.



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.

With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning 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.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



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.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

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



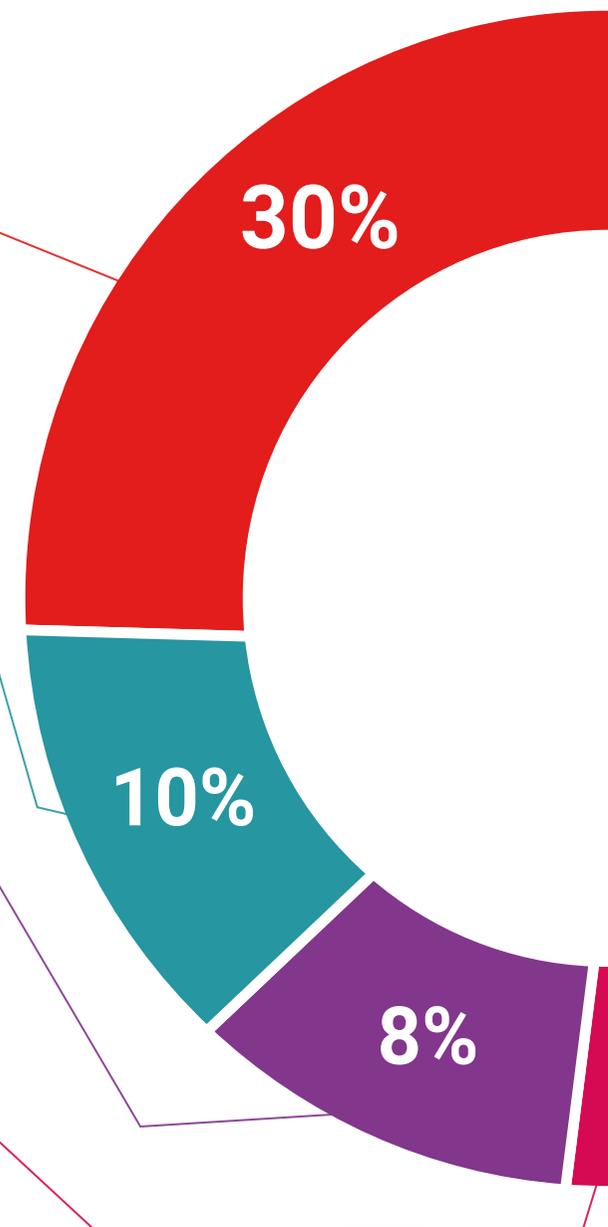
### Practising Skills and Abilities

They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### 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.





#### Case Studies

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management specialists in Latin America.



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



#### 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 your goals.



# 06 Certificate

The Postgraduate Diploma in Neuroeducation, Motor Tasks and Brain Development in Sport guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH - Technological University.



“

*Successfully complete this training and receive your university degree without travel or laborious paperwork.*

This **Postgraduate Diploma in Neuroeducation, Motor Tasks and Brain Development in Sport** 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 diploma issued by **TECH Technological University** will reflect the qualification obtained in the #ESTUDIO#, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Neuroeducation, Motor Tasks and Brain Development in Sport**

Official Number of Hours: **600**

**Endorsed by the NBA**



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

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge presentation  
development language  
virtual classroom



## Postgraduate Diploma Neuroeducation, Motor Tasks and Brain Development in Sport

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

# Postgraduate Diploma

## Neuroeducation, Motor Tasks and Brain Development in Sport

Endorsed by the NBA

