

# Postgraduate Certificate

## Motor Action in Learning Processes

Endorsed by the NBA





## Postgraduate Certificate

### Motor Action in Learning Processes

Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

12 ECTS Credits

Teaching Hours: 300

Website: [www.techtitute.com/us/sports-science/postgraduate-certificate/motor-action-learning-processes](http://www.techtitute.com/us/sports-science/postgraduate-certificate/motor-action-learning-processes)

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01

# Introduction

Motor learning is fundamental for the development of any learning process, especially when doing sport. Children, from a very early age, learn from psychomotor skills, the mechanical, biochemical, psychological, social and cultural processes that they will need for their development into adulthood. Therefore, they must have professionals who know how to enhance their conditions and skills in any area they work on. This TECH program aims to become a highly effective academic training tool that helps children to enhance their learning through good psychomotor skills.





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*Learn about the implications of mental health and interpersonal relationships and enhance your professional profile.*

For experts in sports, learning about the study of emotions in neuroeducational processes, based on motor action, is an excellent working tool. Teaching children to perform movements becomes a powerful tool to develop their learning and get them to absorb more information in different areas of their lives.

For all this, the program has been created to focus on understanding Motor Action in the Learning processes, being key to ensure that children of all ages can be cultivated through motor learning, thus building powerful bridges that connect brain action and the body.

Furthermore, it is a 100% online Postgraduate Certificate that provides students with comfortable study and ease, wherever and whenever they want it. All you need is a device with internet access to take your career one step further. A modality in accord with the current times and all the guarantees to position professionals in a highly demanded field.

This **Postgraduate Certificate in Motor Action in Learning Processes** contains the most complete and updated scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in Neuroeducation.
- ♦ 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.
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning.
- ♦ 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.



*Study a program at the forefront of education, allowing you to better understand the psychomotor process in children.*



*Update your knowledge of the impact motor action has on the learning process.*

*Count on a 100% online program and learn the importance of the cerebellum in infant coordination and cognitive processes.*

*An excellent opportunity to enhance your professional profile and specialize in an area of great demand.*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 immersive training programmed to train in real situations.

This program is designed around Problem Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.



02

# Objectives

TECH accompanies its students on the path to excellence, developing a series of general and specific objectives that lay the foundations to complete the academic profile of future graduates in a satisfactory manner. The syllabus focused on Motor Action in Learning processes has the purpose of expanding the benefits that can be offered from the perspective of sports performance, academic performance, and also in relation to personal development based on the physical and emotional well-being of children.



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*This is based on new knowledge of brain science to focus, in a practical way, on how to implement it in the educational center environment.*



## General Objectives

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- 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.



*Implement the innovations in Neuroeducation in the subject of Physical Education.*





## Specific Objectives

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### **Module 1. The Social Brain in Motor Action from a Neuroscientific Perspective**

- ♦ Describe the role of motor action in the development of social health.
- ♦ Explain the social relationship in personal wellbeing.
- ♦ Explain the implication of mental health and interpersonal relationships.
- ♦ Define the relevance of cooperation from a neuroeducational perspective.

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

- ♦ Explain the main neurotransmitters and hormones related to motor practice and learning ability.
- ♦ Apply strategies for disease prevention and improvement of quality of life in terms of cardiovascular and other risk diseases.
- ♦ Describe the different motor practices that have an impact on brain development.

03

# Course Management

This Postgraduate Certificate has the support of an excellent group of experts who have made available all their experience in this field to students. For this reason, the program includes everything you need to know to specialize in Motor Action in Learning processes, perfectly meeting the demands of today's labor market. This is what will ensure students the certainty of receiving the most updated and complete information, being able to almost immediately put everything they learn in each class into practice.





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*The program puts theory into practice by following the examples of real cases dictated by professionals in the field of neuroscience.*

## 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 Power



## Professors

### **Dr. De la Serna, Juan Moisés**

- ◆ Director of the Open Forum in Psychology and Neurosciences and science communicator.
- ◆ University Specialist in Clinical Hypnosis
- ◆ Doctor in Psychology Master's Degree in Neurosciences and Behavioral Biology
- ◆ Diploma in Didactic Methodology
- ◆ 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

### **Ms. 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

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# Structure and Content

The program design has been devised following the recommendations of the teaching team, all of whom are specialists in different multidisciplinary areas to provide academic excellence to future graduates. In each lesson, professionals will have access to specific knowledge to define the relevance of cooperation from a neuroeducational perspective. All this, from a global perspective for the sake of its application at an international level, incorporating all the fields of work involved in professional development in this type of work environment.





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*Learn about the importance of social brain development from a neuroscientific perspective.*

**Module 1.** The Social Brain in Motor Action from a Neuroscientific Perspective

- 1.1. The Human Being: A Social Being
  - 1.1.1. Approach
- 1.2. The Social Brain
  - 1.2.1. Definition and Development
- 1.3. Mirror Neurons
  - 1.3.1. Structure and Operation
- 1.4. Complex Social Functions
  - 1.4.1. Complex Social Functions
- 1.5. Integral Health through Social Competence
  - 1.5.1. Health and Social Competence
- 1.6. Role of Motor Action in the Development of Social Health
  - 1.6.1. Social Health and Motor Action
- 1.7. Social Relationships in Personal Well-Being
  - 1.7.1. Social Relationships and Well-Being
- 1.8. Mental Health and Interpersonal Relationships
  - 1.8.1. Mental Health and Interpersonal Relationships
- 1.9. Relevance of Cooperation from a Neuroeducational Perspective
  - 1.9.1. Cooperation and Neuroeducation
- 1.10. Climate in Learning Environments
  - 1.10.1. Climate and Learning



*TECH helps you get the best education to compete with other professionals in the field and reach the top.*





## Module 2. Impact Motor Action Has on Cerebral Learning Processes and on Health Development

- 2.1. Impact Motor Action Has on Learning Processes
  - 2.1.1. Motor Action and Learning
- 2.2. Motor Action and Neurophilic Factors BDNF
  - 2.2.1. BDNF
- 2.3. Motor Action, Neurotransmitters and Hormones
  - 2.3.1. Motor Action
  - 2.3.2. Neurotransmitters and Hormones
- 2.4. The Importance of the Cerebellum in Coordination and Cognitive Processes
  - 2.4.1. Cerebellum
- 2.5. Impact Motor Action Has on Memory Processes
  - 2.5.1. Memory Processes and Motor Action
- 2.6. The Prefrontal Cortex, Seat of the Brain's Executive Functions
  - 2.6.1. Executive Functions
- 2.7. Impact of Motor Action on Executive Processes: Decision-Making
  - 2.7.1. Decision-Making
- 2.8. Impact Motor Action Has on Executive Processes: Pause and Reflection Response
  - 2.8.1. Pause and Reflection Response
- 2.9. Motor Action and Predisposition to Learning
  - 2.9.1. Motor Action and Learning.
- 2.10. Impact Motor Action Has on Neuroprotective Processes
  - 2.10.1. Neuroprotection

05

# Methodology

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

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 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 you a revolutionary approach to developing your skills and knowledge. Our goal is to strengthen your skills in a changing, competitive, and highly demanding environment.

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*With TECH you can 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.*



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

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

This Sports Science program at TECH Technological University is an intensive program that 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 offer you material from the best university in the world.



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

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.

In a given situation, what would you do? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, you will be presented with multiple real cases. You will have to combine all your knowledge, and research, argue, and defend your 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 (we 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 to success.*

Based on the latest evidence in neuroscience, not only do we know how to organize information, ideas, images, memories, but we also know that the place and context where we have learned something is crucial for us to be able to remember it and store it in the hippocampus, and 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.



In this program you will have access to the best educational material, prepared with you 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



### 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 our difficult future decisions.



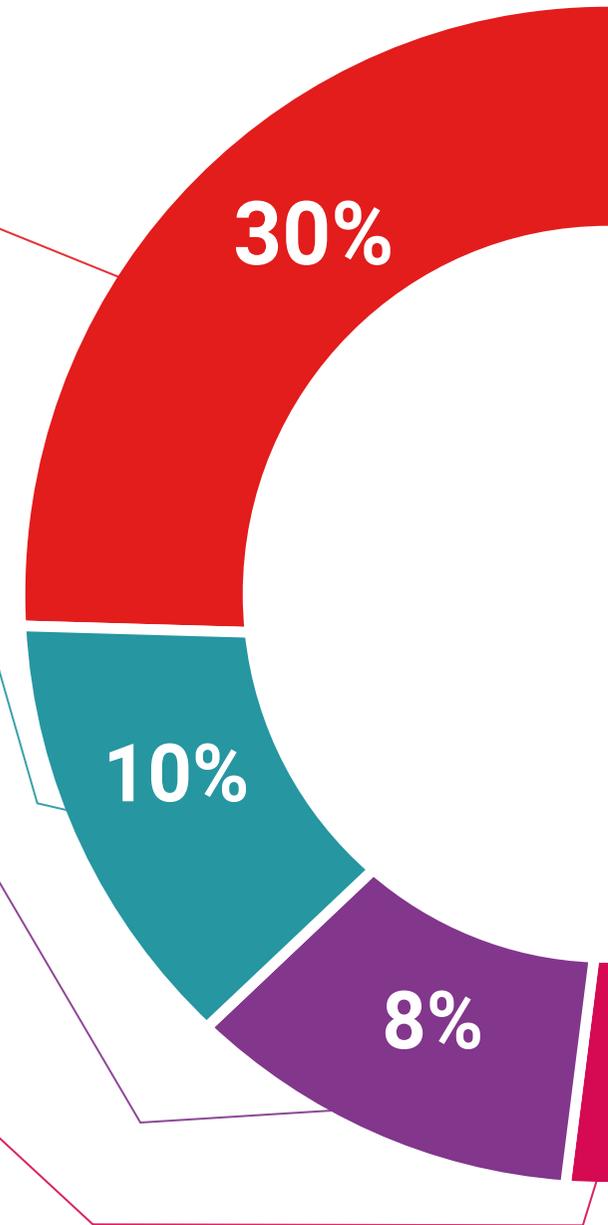
### Practising Skills and Abilities

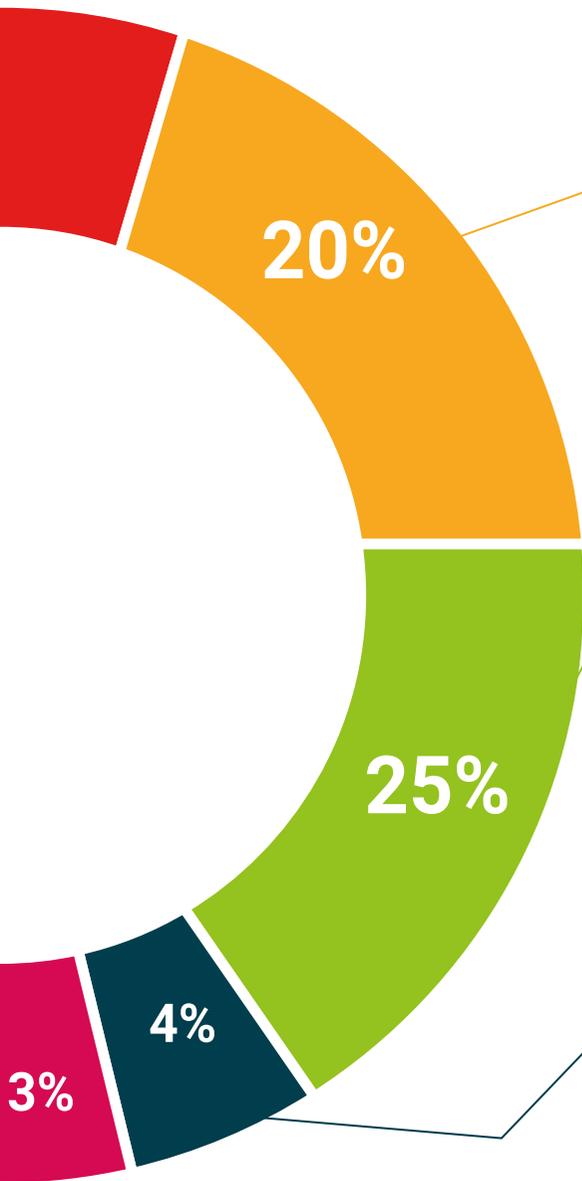
You will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





#### Case Studies

You 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

We present 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".



#### Testing & Retesting

We periodically evaluate and re-evaluate your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



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# Certificate

The Postgraduate Certificate in Motor Action in Learning Processes 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 Certificate in Motor Action in Learning Processes** contains the most complete and updated scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **certificate** issued by **TECH - Technological University via tracked delivery**.

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

Title: **Postgraduate Certificate in Motor Action in Learning Processes**

ECTS: **12**

Official Number of Hours: **300**

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 present quality  
development languages  
virtual classroom



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Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

12 ECTS Credits

Teaching Hours: 300

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