

Postgraduate Diploma

Motor Action in the Cerebral Processes of Learning in Sport

Endorsed by the NBA





Postgraduate Diploma

Motor Action in Cerebral Learning Processes in Sport

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-motor-action-cerebral-processes-learning-sport

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01

Introduction

This training provides the sport science professional with an update on the necessary knowledge about Neuroeducation, motor practices and brain development in Physical Education, providing the necessary tools to include them in their daily practice.





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The best specialists in the sector, belonging to leading companies and prestigious universities have created this Postgraduate Diploma of the highest quality in the educational market".

This Postgraduate Diploma was created with the aim of expanding the benefits that can be offered from 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 leading 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 scientific and academic 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 Motor Action in the Cerebral Processes of Learning 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.
- ◆ Availability of content from any device, fixed or portable, with an Internet connection
- ◆ Complementary content available in multimedia format



Motor action as a driver of cognitive, emotional and personal development processes, in a Postgraduate Diploma designed to adapt to your time and effort requirements".

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Scientific advances in the study of learning processes in the brain as applied to physical exercise.

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 situations of professional practice that arise throughout the Postgraduate 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.

Join the new vision in Physical Education 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 qualify you to practice your profession with the support of proven scientific development.



02 Objectives

The main objective of this Postgraduate Diploma is to provide you with the necessary vision and skills to turn the area of Physical Education into an invaluable tool for the development of the integral wellbeing of the human 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, perception, in short, learning.





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Get the necessary tools to apply the potentials of Motor Action in the Cerebral Processes of Learning in Sport, with an online Postgraduate Diploma of the highest teaching efficiency".

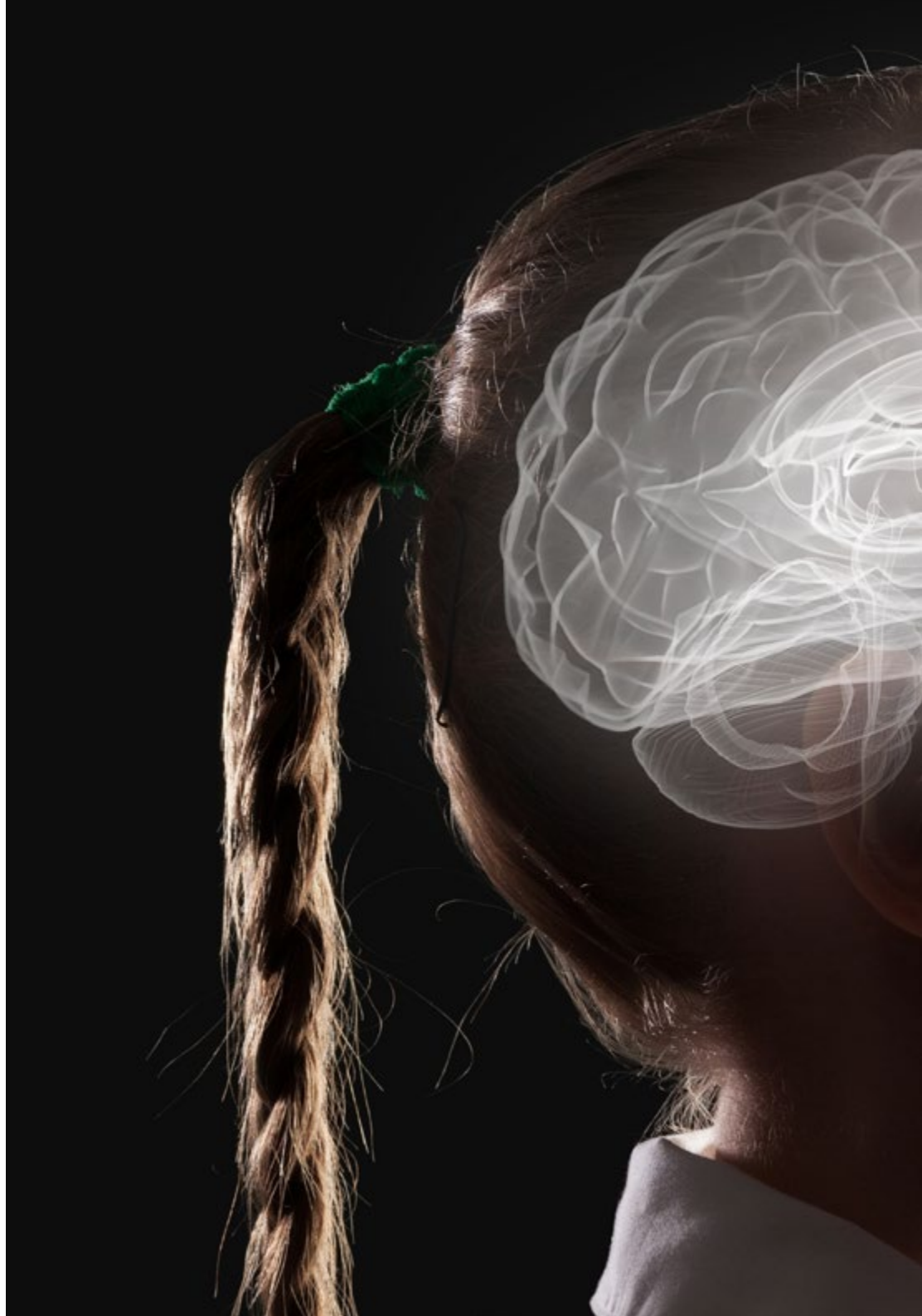


General Objectives

- ◆ 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 a Neuroeducation professional in the field of motor action.



A developed interactive video system will give you the opportunity to learn in virtual learning environments that will expose you to real situations and cases for hands-on learning.





Specific Objectives

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

- ◆ Know the particularities of the social brain
- ◆ In-depth study of the functioning of mirror neurons
- ◆ Study in depth the role of mental health in the development of interpersonal relationships.
- ◆ Delve into the relevance of cooperation from a neuroeducational perspective.
- ◆ Know the role of motor action in the development of social health.

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

- ◆ Understand the impact of motor action on learning processes.
- ◆ Study in depth the concepts of motor action, neurotransmitters and hormones.
- ◆ Delve into the impact of motor action on memory processes.
- ◆ Study in depth the importance of motor action and predisposition to learning.

Module 3. Pedagogical Models and Evaluation in Physical Neuroeducation.

- ◆ Know the most common concepts used in the methodology of physical education.
- ◆ Delve into the different learning models
- ◆ Know how to evaluate the teaching-learning process in Physical Neuroeducation.

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

- ◆ Learn more about the *Flipped Classroom* model.
- ◆ Study in depth problem-based and challenge-based learning.
- ◆ Know other methods, tools and didactic strategies that would be promoted through Physical Neuroeducation.

03

Course Management

The design and development of this Postgraduate Diploma has been carried out by a renowned multidisciplinary teaching staff. 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.





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The Postgraduate Diploma teachers, chosen for their expertise in the area of Physical Neuroeducation, will become your mentors and support throughout your training.”

Management



Ms. Pellicer Royo, Irene

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

Professors

Dr. De la Serna, Juan Moisés

- ◆ PhD 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
- ◆ Expert in Project Management
- ◆ University Specialist in Clinical Hypnosis

- ◆ 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

- ◆ Graduate 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.



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

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. The Complex Social Functions.
- 1.5. Integral Health from a Social Competence Perspective.
- 1.6. Role of Motor Action in the Development of Social Health.
- 1.7. Social Relationship in Personal Well-Being.
- 1.8. Mental Health and Interpersonal Relationships.
- 1.9. The 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. The Prefrontal Cortex, Seat of the Brain's Executive Functions.
- 2.7. Impact of Motor Action with Executive Processes: Decision-Making.
- 2.8. Impact of Motor Action with 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 of the 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 Favoring Physical Neuroeducation.
- 4.10. Methodological Guidelines and Recommendations for the Design of Programs, Units and Sessions Based on Physical Neuroeducation.



A unique, key, and decisive training 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.





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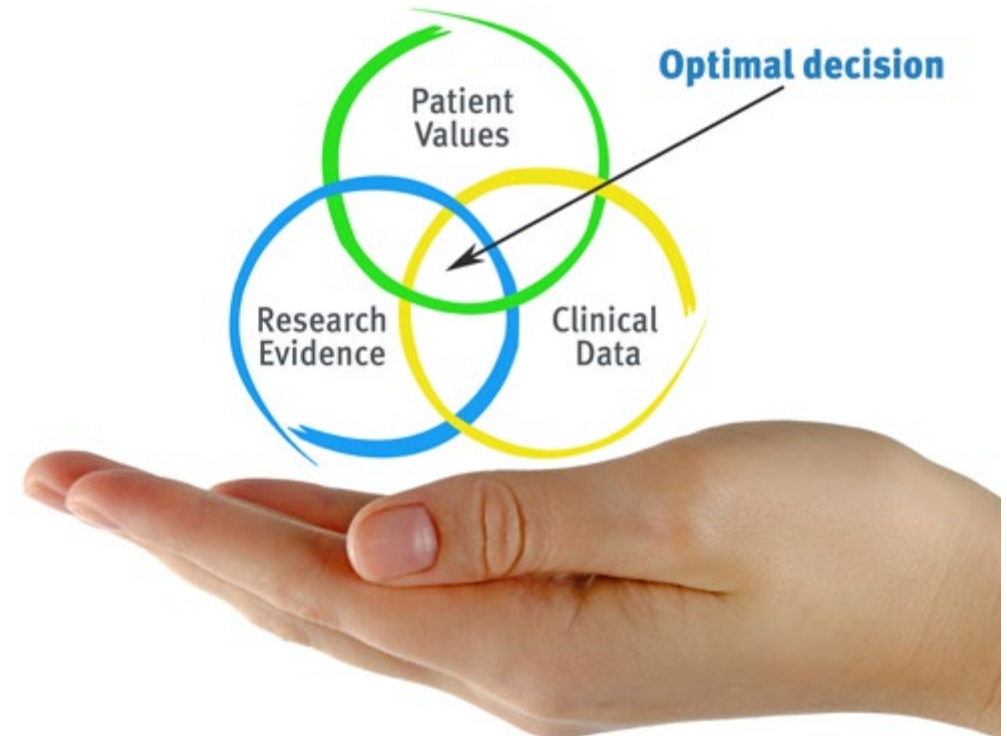
Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

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

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At TECH, you will experience a learning methodology 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 to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This intensive Sports Science program at TECH Global University prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting personal and professional growth, the best way to strive for success, that is why TECH uses 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 case method is the most widely used learning system in 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.

Relearning 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: Relearning.

In 2019, we obtained the best learning results of all 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 Relearning.

Our university is the only one in the world authorized to employ 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 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.

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.

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 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.



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.



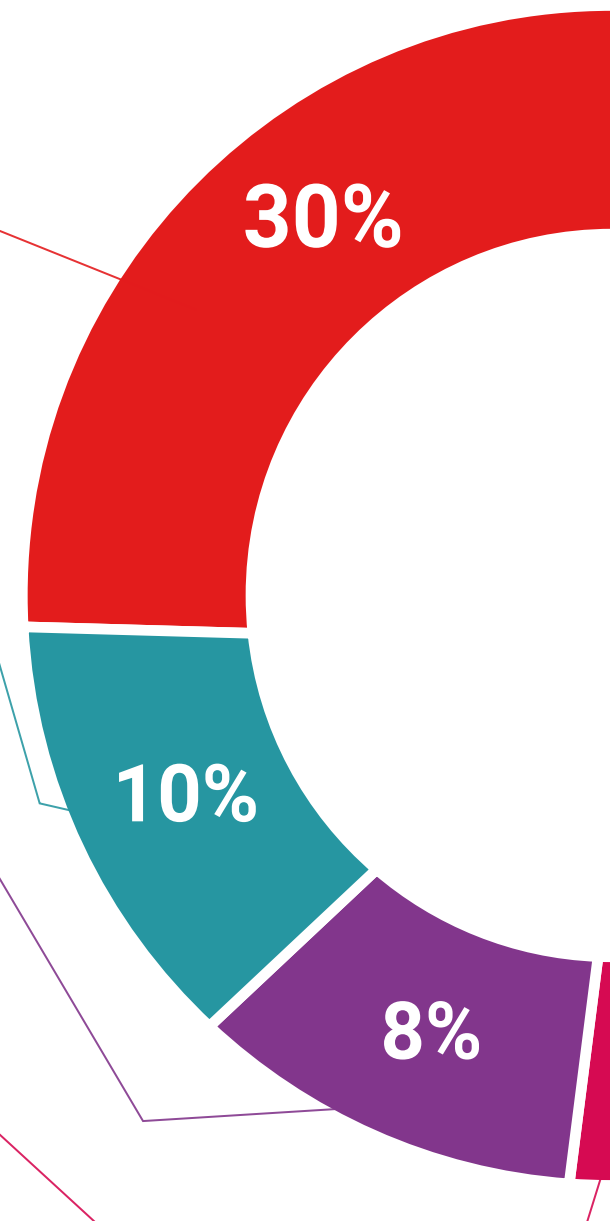
Practising Skills and Abilities

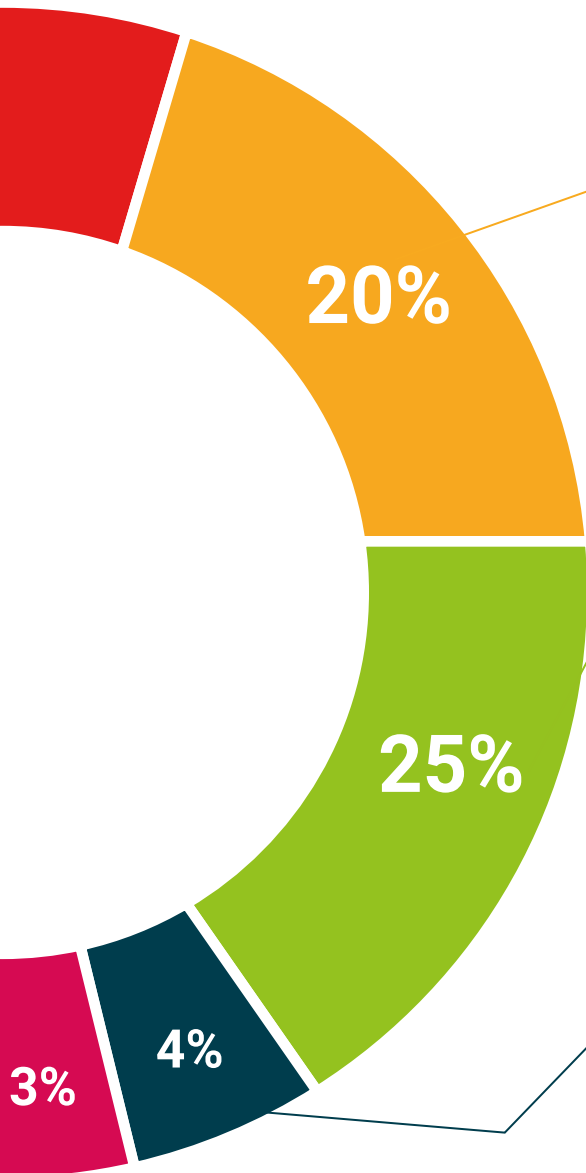
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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 specialists in the world.



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".



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.



06 Certificate

The Postgraduate Diploma in Motor Action in the Cerebral Processes of Learning in Sport guarantees you students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.



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Get your Postgraduate Diploma in Motor Action in the Cerebral Processes of Learning in Sport, in a comfortable and easy way, with an accredited online Postgraduate Diploma of high educational value”.

This program will allow you to obtain your **Postgraduate Diploma in Motor Action in Cerebral Learning Processes in Sport** 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 Diploma in Motor Action in Cerebral Learning Processes in Sport**

Modality: **online**

Duration: **6 months**

Accreditation: **24 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.

health future confidence people education information tutors guarantee accreditation teaching institutions technology learning community commitment personalized service innovation knowledge present online training development languages virtual classroom



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