



## Postgraduate Certificate

Fitness Instructor in Physical Exercise in Children, Adolescents and Older Adults

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/sports-science/postgraduate-certificate/fitness-instructor-physical-exercise-children-adolescents-older-adults

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## tech 06 | Introduction

This Postgraduate Certificate will address in depth the training process in different age stages such as infant, juvenile and elderly. The main characteristics of each of these stages will be broken down based on their morpho-functional changes, the incidence of neurosciences and nutrition with the objective of planning training sessions respecting the individuality of the physical workload

All this, compiled into an academic program of only six weeks and that aims to become a before and after for the student's professional career, allowing them to work as a Fitness Instructor for people of special ages with greater guarantees

In addition, as this is an online program, professionals can update their knowledge and acquire new competencies without having to give up or neglect the rest of their daily activities

This Postgraduate Certificate in Fitness Instructor in Physical Exercise in Children and Adolescents and Older Adults contains the most complete and up-to-date program on the market. The most important features of the program include:

- Practical cases presented by experts in Physical Activity and Sport
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- 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



Provide the best customer care for your clients of special ages and start competing with the best in the industry"



Welcome to the academic program that will lay the foundation for your professional growth and open the doors to a promising future" Turn your professional career around with this Certificate Postgraduate Certificate.

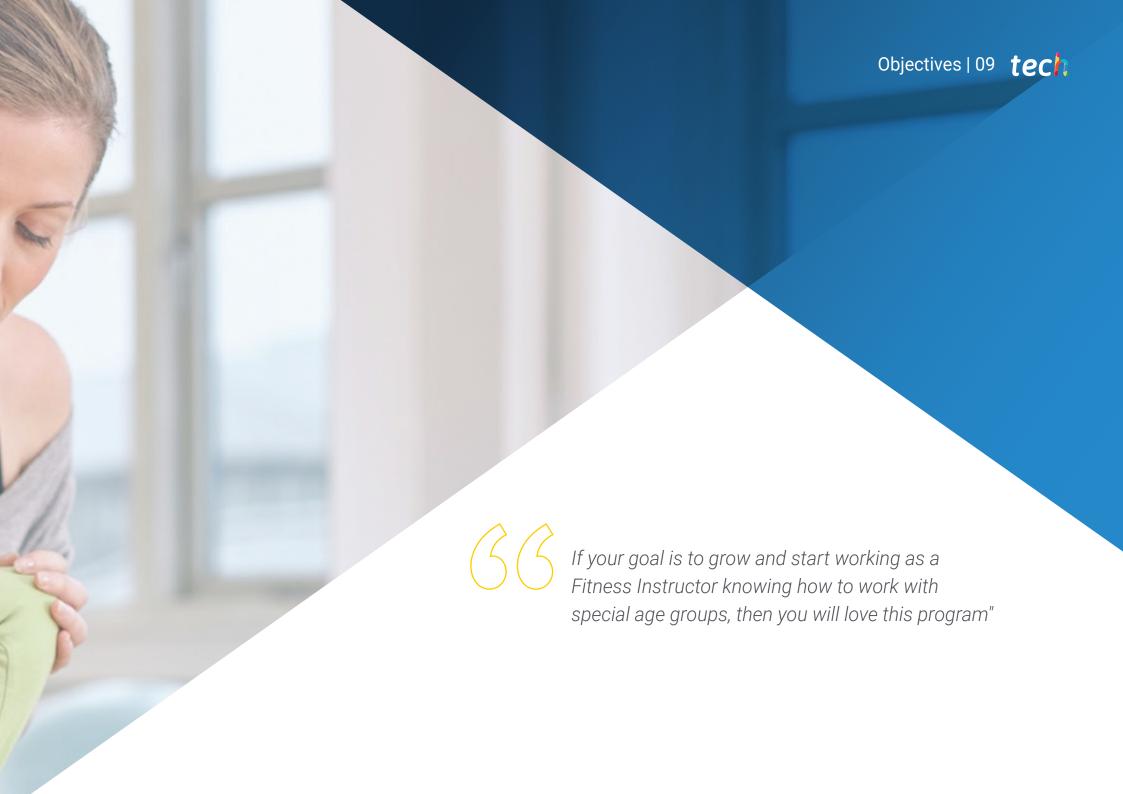
The program includes, in its teaching staff, professionals from the sector who bring their work experience to this refresher program, as well as renowned specialists from reference societies and prestigious universities

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 throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts





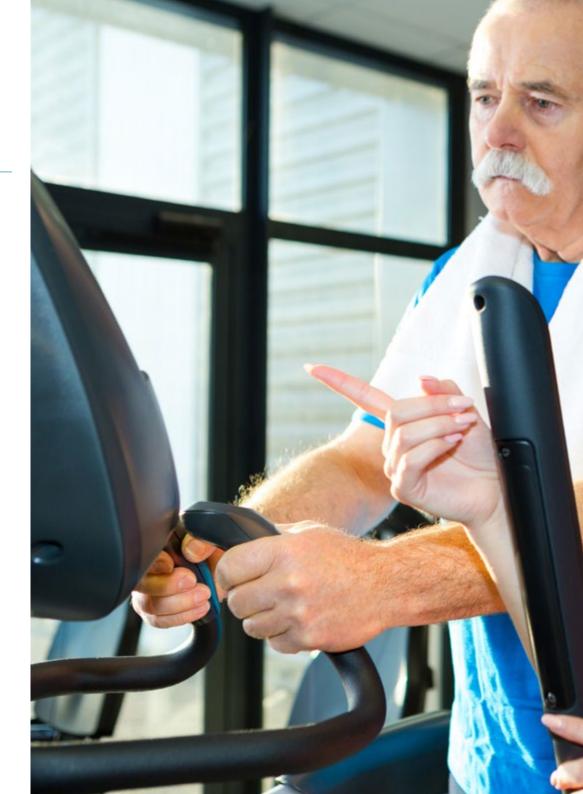


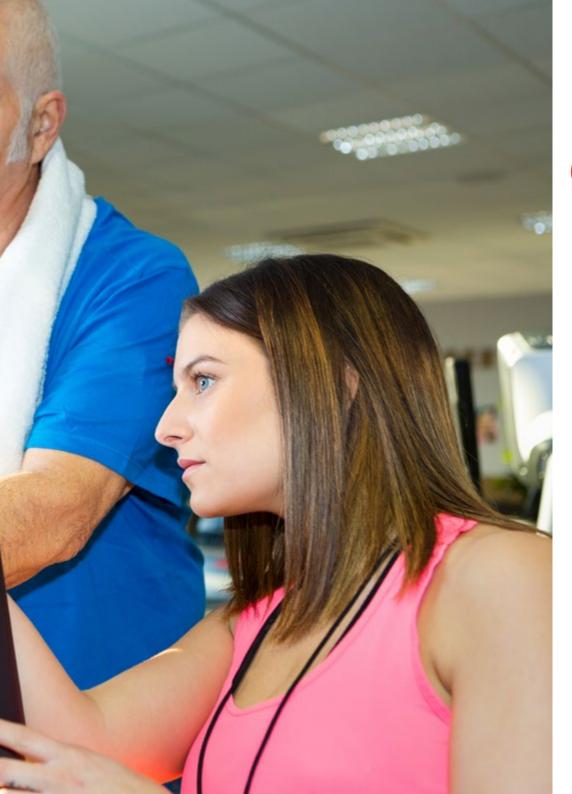
## tech 10 | Objectives



## **General Objectives**

- Acquire knowledge based on the most current scientific evidence with full applicability in the practical field
- Master all the most advanced methods of sports performance evaluation
- Master and apply with certainty the most current training methods to improve sports performance and quality of life, as well as to improve the most common pathologies
- Master the principles governing exercise physiology, as well as biochemistry
- Successfully integrate all the knowledge acquired in the different modules in real practice







## **Specific Objectives**

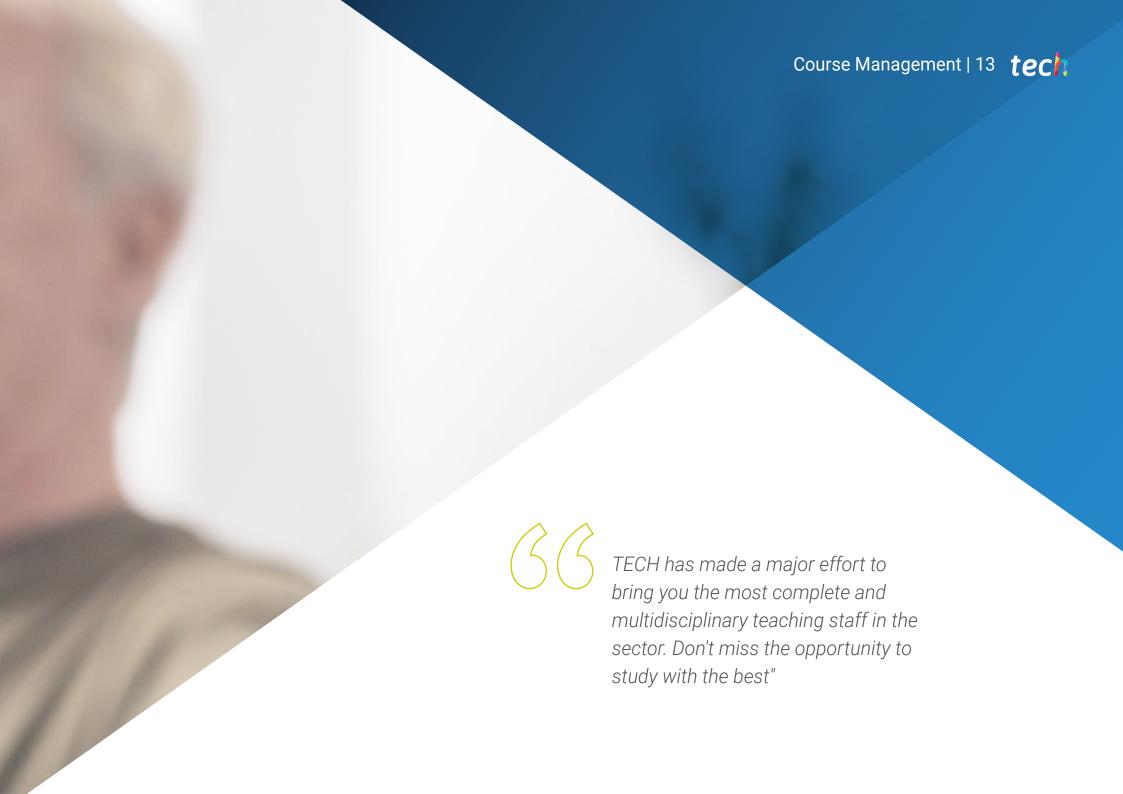
- In-depth understanding of the biopsychosocial aspects of children, adolescents and older adults
- In-depth knowledge of the particularities of each age group and their specific approach
- Be able to plan and program training in an individualized way for children, adolescents and older adults



Your goals and TECH's goals come together and materialize in this academic program with excellent curricular"

# 03 Course Management

The faculty of this program is made up of a group of active and highly qualified experts. Thus, the professional who decides to take this program with TECH, will learn from a faculty of excellence, with years of experience in the sector and with the greatest desire to graduate the best in this field. For this reason, this team has also designed the contents of the program, ensuring the student a complete learning experience, based on the highest scientific rigor and the latest developments in the sector.



## tech 14 | Course Management

#### Management



#### Mr. Rubina, Dardo

- CEO of Test and Training
- EDM Physical Training Coordinator
- Physical trainer of the EDM First Team
- Master's Degree in High Performance in Sports(ARD) COE
- EXOS Certification
- Specialist in Strength Training for the Prevention of Injuries, Functional and Physical-Sports Rehabilitation
- Specialist in Strength Training Applied to Physical and Sports Performance
- Certification in Weight Management and Physical Performance Technologies
- Postgraduate course in Physical Activity in Populations with Pathologies
- Diploma in Advanced Studies (DEA) University of Castilla la Mancha
- PhD in High Performance Sports(ARD)



## Course Management | 15 tech

#### **Professors**

#### Mr. Renda, Juan

- National Professor of Physical Education. ISEF No. 1 "Dr. Enrique Romero Brest".
- Degree in Kinesiology and Physiatry. University Institute H.A. Foundation Bacelo.
- Bachelor's Degree in Physical Education with a specialization in Physiology of General Physical Work at San Martin National University.
- Master's Degree in Physical Education at the National University of Lomas de Zamora





## tech 18 | Structure and Content

#### Module 1. Physical Exercise in Children, Adolescents and Older Adults

- 1.1. Physical Exercise in Children and Adolescents
  - 1.1.1. Growth, Maturation and Development
  - 1.1.2. Development and Individuality: Chronological Age vs. Biological Age
  - 1.1.3. Sensitive Phases
  - 1.1.4. Long-term Development (Long-term Athlete Development)
- 1.2. Physical Fitness Assessment in Children and Adolescents
  - 1.2.1. Main Assessment Tools
  - 1.2.2. Assessment of Coordinative Capacities
  - 1.2.3. Assessment of Conditional Capacities
  - 1.2.4. Morphological Assessments
- 1.3. Physical Exercise Planning for Children and Adolescents
  - 1.3.1. Muscle Strength Training
  - 1.3.2. Aerobic Fitness Training
  - 1.3.3. Speed Training
  - 1.3.4. Flexibility Training
- 1.4. Neurosciences and Child and Adolescent Development
  - 1.4.1. Neurolearning in Childhood
  - 1.4.2. Motor Skills. Basis of Intelligence
  - 1.4.3. Attention and Emotion. Early Learning
  - 1.4.4. Neurobiology and Epigenetic Theory in Learning
- 1.5. Approach to Physical Exercise in the Older Adult
  - 1.5.1. Aging Process
  - 1.5.2. Morphofunctional Changes in the Older Adult
  - 1.5.3. Objectives of Physical Exercise in the Older Adult
  - 1.5.4. Benefits of Physical Exercise in the Older Adult
- 1.6. Comprehensive Gerontological Assessment
  - 1.6.1. Coordination Skills Test
  - 1.6.2. Katz Index of Independence in Activities of Daily Living
  - 1.6.3. Test of Conditioning Capacities
  - 1.6.4. Fragility and Vulnerability in Older Adults



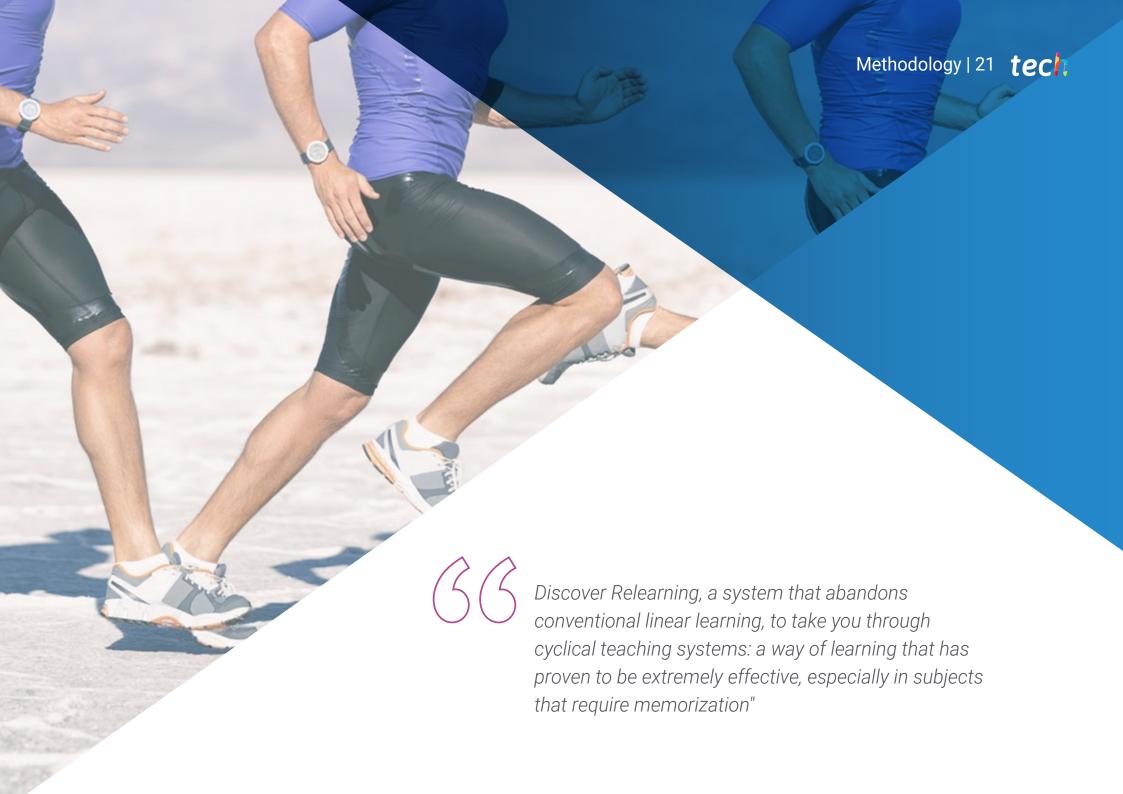


## Course Management | 19 tech

- 1.7. Instability Syndrome
  - 1.7.1. Epidemiology of Elderly Woman Obesity
  - 1.7.2. Detection of Patients at Risk without a Previous Fall
  - 1.7.3. Risk Factors for Falls in the Elderly
  - 1.7.4. Post-Fall Syndrome
- 1.8. Nutrition in Children, Adolescents and Older Adults
  - 1.8.1. Nutritional Requirements for Each Stage of Life
  - 1.8.2. Increased Prevalence of Childhood Obesity and Type 2 Diabetes in Children
  - 1.8.3. Association of Degenerative Diseases with Saturated Fat Consumption
  - .8.4. Nutritional Recommendations for the Practice of Physical Exercise
- 1.9. Neurosciences and Older Adults
  - 1.9.1. Neurogenesis and Learning
  - 1.9.2. Cognitive Reserve in Older Adults
  - 1.9.3. We Can Always Learn
  - 1.9.4. Aging is not Synonymous with Disease
  - .9.5. Alzheimer's and Parkinson's Disease, the Value of Physical Activity
- 1.10. Physical Exercise Planning for Older Adults
  - 1.10.1. Muscle Strength and Power Training
  - 1.10.2. Aerobic Fitness Training
  - 1.10.3. Cognitive Training
  - 1.10.4. Training Coordinative Capacities
  - 1.10.5. Conclusion and Closing of the Module







## tech 22 | Methodology

#### Case Study to contextualize all content

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.



At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"



You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.



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 TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.



Our program prepares you to face new challenges in uncertain environments and achieve success in your career"

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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study 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.



### Methodology | 25 tech

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.



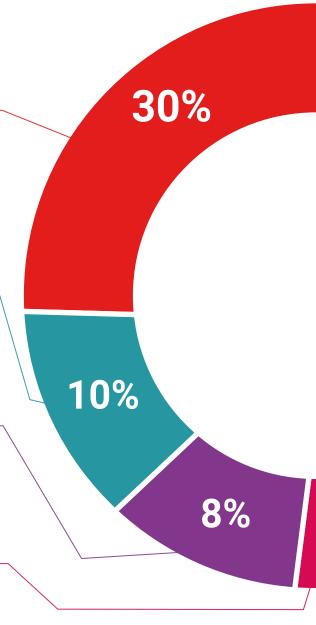
#### **Practising Skills and Abilities**

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.

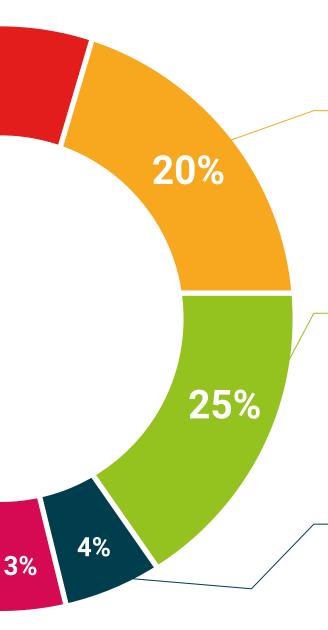


#### **Additional Reading**

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.



## Methodology | 27 tech



#### **Case Studies**

Students will complete a selection of the best case studies chosen specifically for this situation. 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**

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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.





## tech 30 | Certificate

This Postgraduate Certificate in Fitness Instructor in Physical Exercise in Children and Adolescents and Older Adults contains the most complete and up-to-date program Scientist the market.

After the student has passed the assessments, they will receive their corresponding Postgraduate 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 meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: Postgraduate Certificate in Fitness Instructor in Physical Exercise in Children, Adolescents and Older Adults

Official N° of Hours: 150 h.

#### **Endorsed by the NBA**





#### **POSTGRADUATE CERTIFICATE**

Fitness Instructor in Physical Exercise in Children, Adolescents and Older Adults

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as

<sup>\*</sup>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.

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technological

university

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