

# Postgraduate Certificate

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

Endorsed by the NBA



**tech** technological  
university





## 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/in/sports-science/postgraduate-certificate/fitness-instructor-physical-exercise-children-adolescents-older-adults](http://www.techtitute.com/in/sports-science/postgraduate-certificate/fitness-instructor-physical-exercise-children-adolescents-older-adults)

# 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

A Fitness Instructor must face in their daily work different situations to which they must be able to respond successfully. Among them, one of the most common concerns for professionals is the attention to populations of different ages, since it is necessary to know how to work with their needs in order to be able to offer them a correct service adapted to their requirements. Therefore, this academic program seeks to nurture the knowledge of sports professionals to be able to work with special groups such as pregnant women, obese people, children and youth, knowing how to adapt their physical possibilities to the training plan in order to offer them optimal results.



“

*TECH provides students with a highly demanding program where they can learn to work with special age groups such as children, adolescents or older adults”*

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"*

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*Welcome to the academic program that will lay the foundation for your professional growth and open the doors to a promising future"*

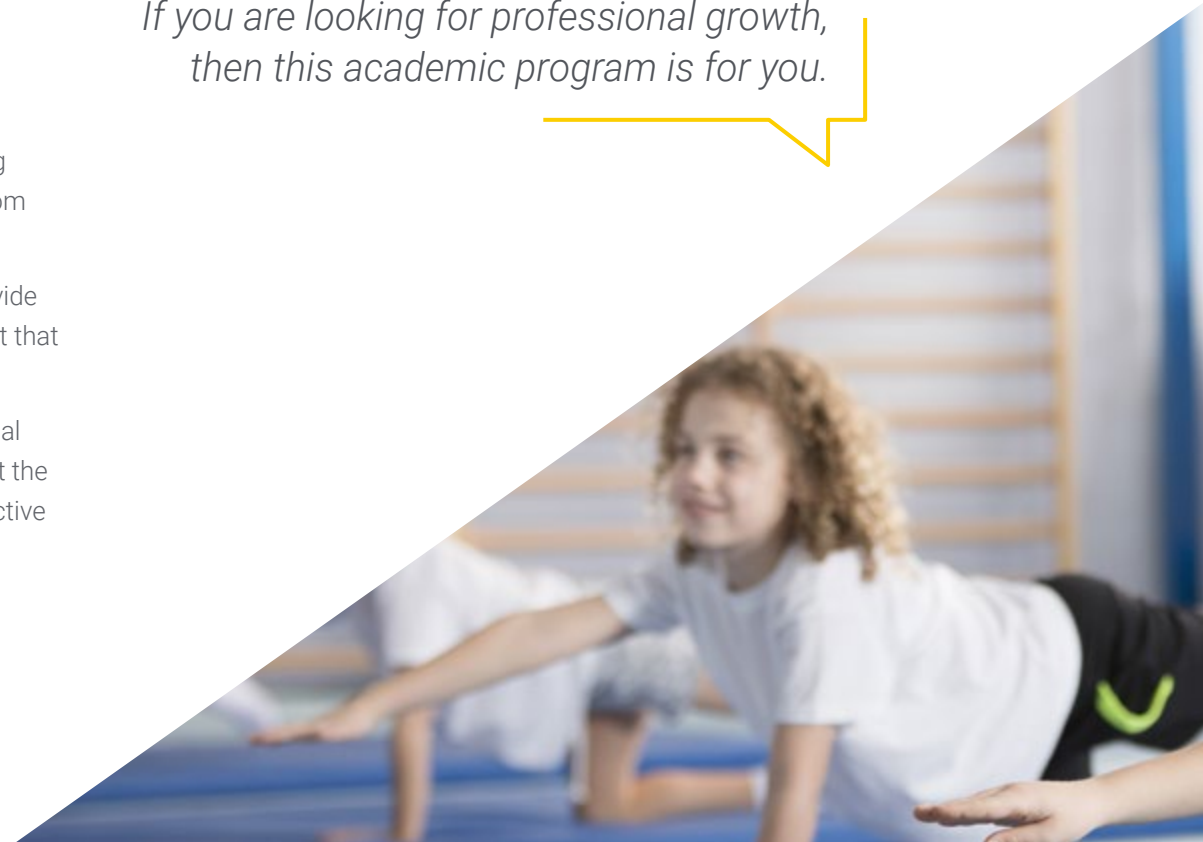
The program includes, in its teaching staff, professionals from the sector who bring their work experience to this refresher program, as well as renowned specialists from reference societies and prestigious universities

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

*Turn your professional career around with this Certificate Postgraduate Certificate.*

*If you are looking for professional growth, then this academic program is for you.*



# 02 Objectives

The main objective of this academic program is to enhance students' acquisition of specific skills that will become the foundation on which they will base their daily practice. To this end, a program of the highest level has been created based on the latest developments in the sector and created with the utmost scientific rigor. These contents will be taught by a team of first-class professionals who will provide the student with valuable tools to work as a Fitness Instructor, knowing how to work and attend special groups





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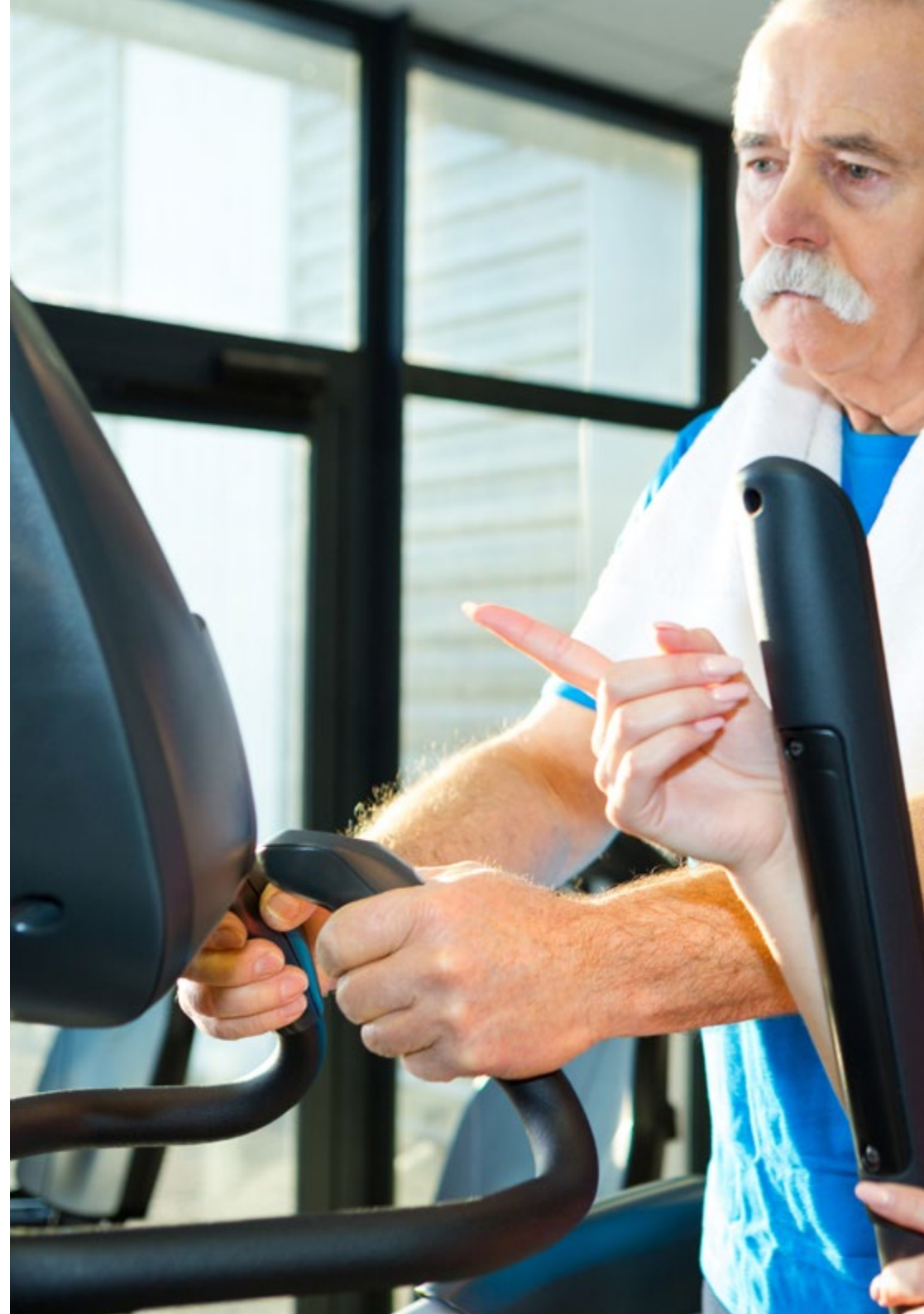
*If your goal is to grow and start working as a Fitness Instructor knowing how to work with special age groups, then you will love this program”*



## General Objectives

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- ♦ 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

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- ♦ 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.



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*TECH has made a major effort to bring you the most complete and multidisciplinary teaching staff in the sector. Don't miss the opportunity to study with the best"*

## 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)



## 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 Bachelo.
- ♦ 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

# 04

## Structure and Content

The contents of this Postgraduate Certificate have been designed based on the highest scientific rigor and taking into account the latest developments in the sector. In the same way, a group of experts from prestigious institutions have been in charge of designing and shaping the syllabus. They have contributed to this academic updating program with the experience of their years of work and their constant research in this field of study. This allows us to provide students with the most complete library of contents on the market, which will become their theoretical support when facing their daily work.







“

*Premium content designed by and  
for professionals of excellence”*

## 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





- 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
  - 1.8.4. 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
  - 1.9.5. 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

“ Study at TECH and start multiplying your job possibilities”

# 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"*

### 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.

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*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.





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

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

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 Certificate in Fitness Instructor in Physical Exercise in Children and Adolescents and Older Adults guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 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 certificate 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**



\*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.

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



**Postgraduate Certificate**  
Fitness Instructor in Physical  
Exercise in Children,  
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- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

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