

# Postgraduate Certificate

## Strength Training Methodology

Endorsed by the NBA





## Postgraduate Certificate

### Strength Training Methodology

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

Website: [www.techtitute.com/us/physiotherapy/postgraduate-certificate/strength-training-methodology](http://www.techtitute.com/us/physiotherapy/postgraduate-certificate/strength-training-methodology)

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01

# Introduction

This Postgraduate Certificate addresses the vital importance of strength in human performance in all its possible expressions with a unique level of theoretical and practical depth different from what has been seen so far.

The physiotherapist will learn the latest developments in the sector with this rigorous qualification taught by prestigious professionals.





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*A unique, key, and decisive program to boost your professional development”*

Over the years there has been an enormous variation of conceptions in the contribution of pedagogical structures for the approach to the strength training process, which is defined and understood by the term "methods" Each spiced with the bias of its original paradigm. For all this and many other aspects, it becomes inevitable to raise the need to analyze many of these precepts regarding strength training, in order to develop a precise and critical point of view, which can be transferable to the field of professional performance and real day to day settings.

The faculty of this Postgraduate Certificate in Strength Training Methodology has made a careful selection of each of the topics of this qualification in order to offer the student an educational opportunity as complete as possible and always linked to current events.

Thus, TECH has set out to create contents of the highest teaching and educational quality that will turn students into successful professionals, following the highest quality standards in teaching at an international level. Therefore, we offer you this Postgraduate Certificate with extensive content that will help you reach the elite in physiotherapy. As it is an online program, students will not be bound by fixed schedules or the need to move to another physical location, but rather, they can access the content at any time of the day, balancing their professional or personal life with their academic life.

This **Postgraduate Certificate in Strength Training Methodology** contains the most complete and up to date scientific program on the market. The most important features include:

- » The development of numerous case studies presented by specialists in personal training
- » The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice
- » Exercises where the self assessment process can be carried out to improve learning
- » Algorithm-based interactive learning system for decision making
- » Special emphasis on innovative methodologies in physiotherapy
- » 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



*Immerse yourself in this Postgraduate Certificate of high scientific rigor and improve your skills in strength training for high performance sports"*

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*This course is the best investment you can make in selecting a refresher program for two reasons: in addition to updating your knowledge as a personal trainer, you will earn a degree from the leading online university in Spanish: TECH”*

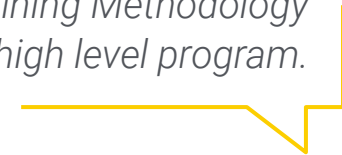
The teaching staff includes professionals from the field of sports science, who bring their experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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

*This Postgraduate Certificate allows training in simulated environments, which provide immersive learning programmed to train for real situations.*

*Increase your knowledge of Strength Training Methodology with this high level program.*



# 02

# Objectives

The main objective of this program is the development of theoretical and practical learning, so that the physiotherapist can master in a practical and rigorous way Strength Training Methodology.







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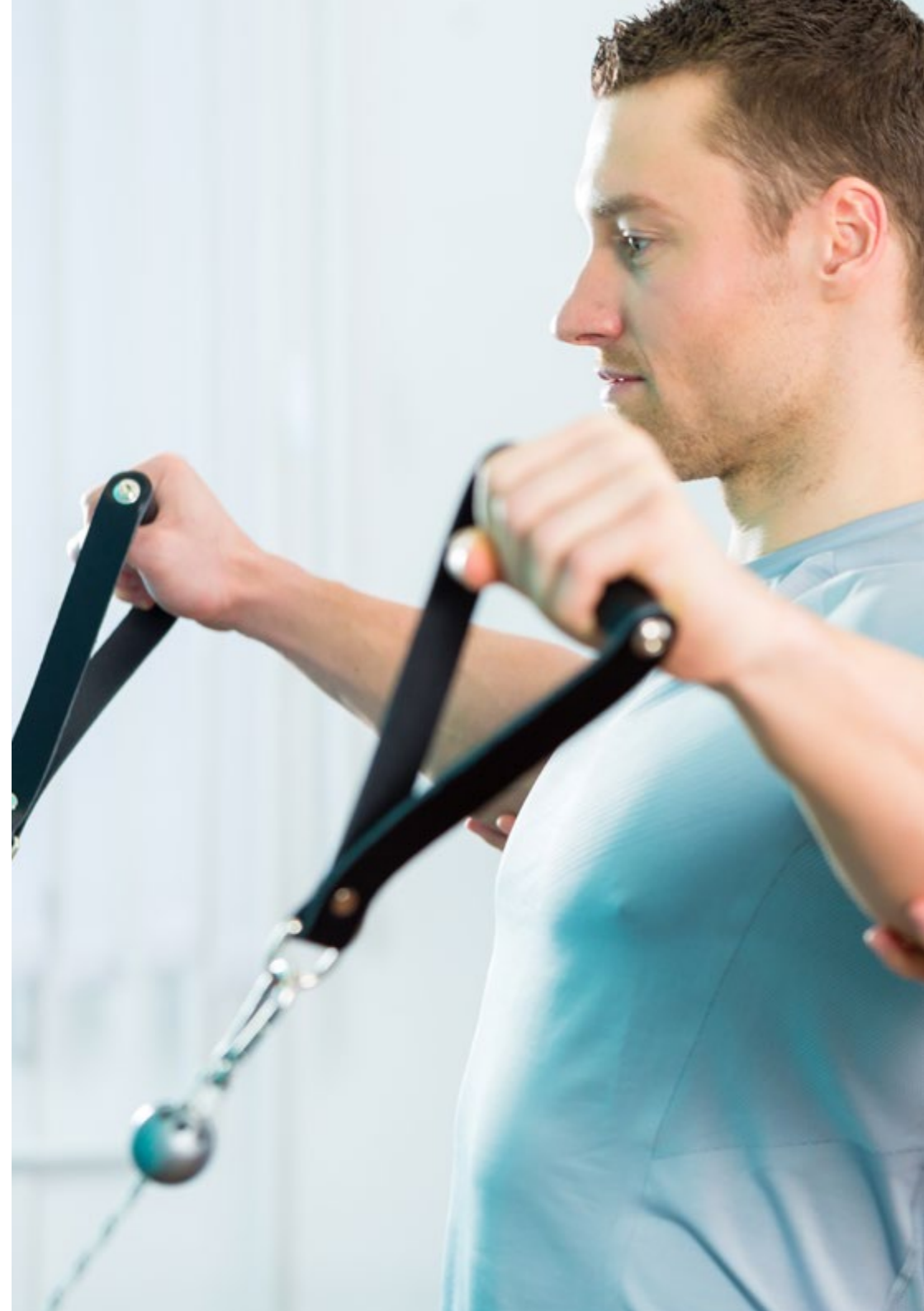
*Our goal is to achieve academic excellence and help you achieve professional success. Don't hesitate any longer and join us”*



## General Objectives

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- » Deepen the knowledge based on the most current scientific evidence with full applicability in the practical field of strength training
- » Master all the most advanced methods of strength training
- » Apply with certainty the most current training methods to improve sports performance regarding strength
- » Effectively master strength training for performance enhancement in time and mark sports as well as situational sports
- » Master the principles governing exercise physiology and biochemistry
- » Delve into the principles governing the theory of complex dynamic systems as they relate to strength training
- » Successfully integrate strength training for the improvement of motor skills immersed in sport
- » Successfully master all the knowledge acquired in the different modules in real practice





## Specific Objectives

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- » Gain in depth knowledge of the different methodological proposals of strength training and their applicability to the field of practice
- » Select the most appropriate methods for specific needs
- » Recognize and safely apply the different methods proposed in the literature

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*The sports field requires trained professionals, and we give you the keys to position yourself among the professional elite"*

03

# Course Management

Our teaching team has a wide prestige in the sector and are professionals with years of teaching experience who have joined forces to help you give a boost to your profession. For this reason, they have developed this program with recent updates on the subject that will allow you to learn and increase your skills in the field.





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*Learn from the best professionals and  
become a successful professional yourself”*

## Management



### Dr. Rubina, Dardo

- ♦ CEO of Test and Training
- ♦ EDM Physical Training Coordinator
- ♦ Physical trainer of the EDM First Team
- ♦ Master's Degree in (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
- ♦ Specialist in Applied Biomechanics and Functional Evaluation
- ♦ Certification in Weight Management and Physical Performance Technologies
- ♦ Postgraduate course in Physical Activity in Populations with Pathologies
- ♦ Postgraduate diploma in Injury Prevention and Rehabilitation
- ♦ Functional Assessment and Corrective Exercise Certificate
- ♦ Certificate in Functional Neurology
- ♦ Diploma in Advanced Studies (DEA) University of Castilla la Mancha
- ♦ PhD Candidate in (ARD)

## Professors

### Mr. Masse, Juan

- » Director of the Athlon Science Study Group
- » Physical trainer for several professional soccer teams in South America, experienced teacher



# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of training in daily practice, aware of the relevance of quality training in the field of physiotherapy and committed to quality teaching through new educational technologies.







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*We have the most complete and up to date educational program on the market. We want to provide you with the best qualification"*

## Module 1. Strength Training Methodology

- 1.1. Methods of Training From *Powerlifting*
  - 1.1.1. Functional Isometrics
  - 1.1.2. Forced Repetitions
  - 1.1.3. Eccentrics in Competition Exercises
  - 1.1.4. Main Characteristics of the Most Commonly Used Methods in *Powerlifting*
- 1.2. Methods of Training from Weightlifting
  - 1.2.1. Bulgarian Method
  - 1.2.2. Russian Method
  - 1.2.3. Origin of the Popular Methodologies in the School of Olympic Lifting
  - 1.2.4. Differences Between the Bulgarian and Russian Concepts
- 1.3. Zatsiorsky's Methods
  - 1.3.1. Maximum Effort Method (ME)
  - 1.3.2. Repeated Effort Method (RE)
  - 1.3.3. Dynamic Effort Method (DE)
  - 1.3.4. Load Components and Main Features of the Zatsiorsky Methods
  - 1.3.5. Interpretation and Differences of Mechanical Variables (Force, Power and Speed) Revealed Between ME, RE and DE and Their Internal Response (PSE)
- 1.4. Pyramidal Methods
  - 1.4.1. Classic Ascending
  - 1.4.2. Classic Descending
  - 1.4.3. Double
  - 1.4.4. Skewed Pyramid
  - 1.4.5. Truncated Pyramid
  - 1.4.6. Flat or Stable Pyramid
  - 1.4.7. Load Components (Volume and Intensity) of the Different Proposals of the Pyramidal Method



- 1.5. Training Methods From Bodybuilding
  - 1.5.1. Superseries
  - 1.5.2. Triseries
  - 1.5.3. Compound Series
  - 1.5.4. Giant Series
  - 1.5.5. Congestive Series
  - 1.5.6. *Wave-Like loading*
  - 1.5.7. *ACT (Anti-Catabolic Training)*
  - 1.5.8. *Bulk*
  - 1.5.9. *Cluster*
  - 1.5.10. 10x10 Satziorsky
  - 1.5.11. *Heavy Duty*
  - 1.5.12. Ladder
  - 1.5.13. Characteristics and Load Components of the Different Methodological Proposals of Training Systems Coming From Bodybuilding
- 1.6. Methods from Sports Training
  - 1.6.1. Plyometry
  - 1.6.2. *Circuit Training*
  - 1.6.3. *Cluster Training*
  - 1.6.4. Contrast
  - 1.6.5. Main Characteristics of Strength Training Methods Derived from Sports Training
- 1.7. Methods from Unconventional Training and *CrossFit*
  - 1.7.1. EMOM (Every Minute on the Minute)
  - 1.7.2. Tabata
  - 1.7.3. AMRAP (As Many Reps as Possible)
  - 1.7.4. *For Time*
  - 1.7.5. Main Characteristics of Strength Training Methods Derived from *CrossFit Training*
- 1.8. Speed-Based Training (VBT)
  - 1.8.1. Theoretical Foundation
  - 1.8.2. Practical Considerations
  - 1.8.3. Own Data
- 1.9. The Isometric Method
  - 1.9.1. Concepts and Physiological Fundamentals of Isometric Stresses
  - 1.9.2. Yuri Verkhoshanski Proposal
- 1.10. Methodology of *Repeat Power Ability* (RPA) From Alex Natera
  - 1.10.1. Theoretical Basis
  - 1.10.2. Practical Applications
  - 1.10.3. Published Data vs. Own Data
- 1.11. Training Methodology Proposed by Fran Bosch
  - 1.11.1. Theoretical Basis
  - 1.11.2. Practical Applications
  - 1.11.3. Published Data vs. Own Data
- 1.12. Cal Dietz and Matt Van Dyke's Three-Phase Methodology
  - 1.12.1. Theoretical Basis
  - 1.13.2. Practical Applications
- 1.13. New Trends in Quasi-Isometric Eccentric Training
  - 1.13.1. Neurophysiological Rationale and Analysis of Mechanical Responses Using Position Transducers and Force Platforms for Each Strength Training Approach



*This 100% online program will allow you to combine your studies with your professional work, while increasing your knowledge in this field"*

# 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.





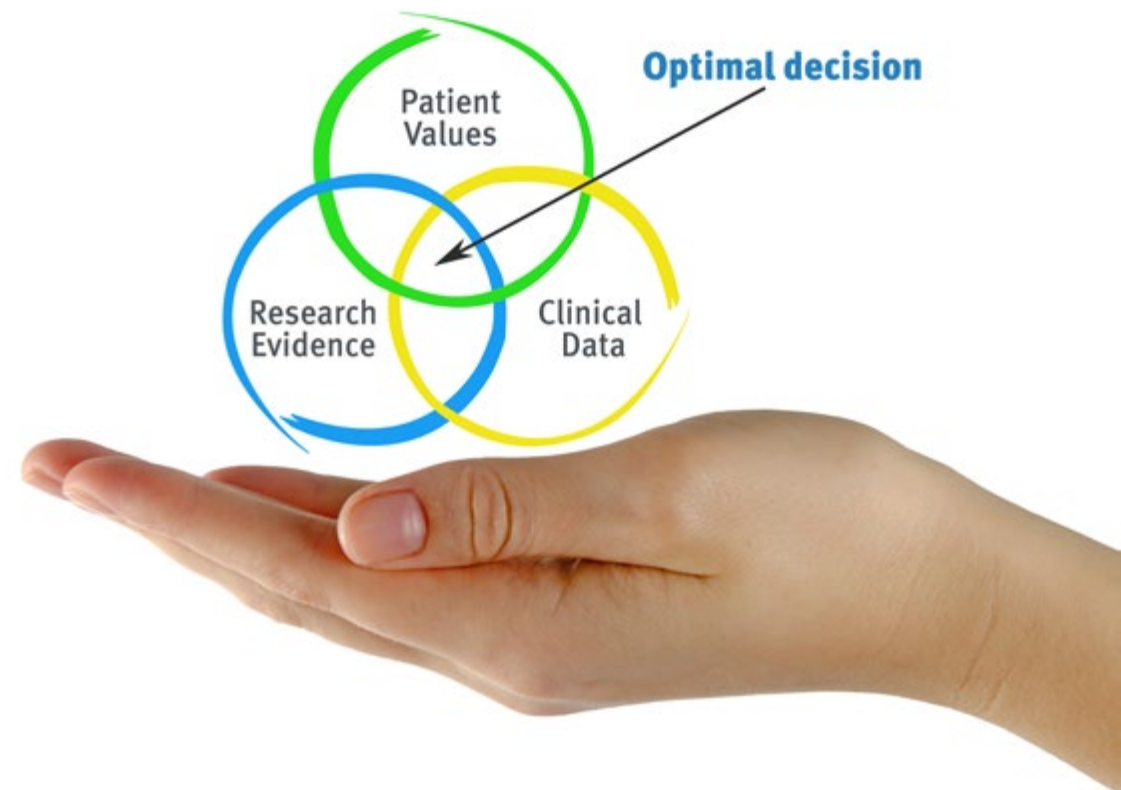
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists learn better, faster, and more sustainably over time.

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



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions of professional physiotherapy practice.

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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.



*The physiotherapist/kinesiologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*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.*

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.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



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.



#### Physiotherapy Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



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



#### 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.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### 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.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Strength Training Methodology guarantees students, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Global University.





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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Strength Training Methodology** 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 Certificate in Strength Training Methodology**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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.

future

health

confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

online training

development language

virtual classroom

**tech** global university

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