

# Postgraduate Certificate Functional and Biomechanic Fitness Assessments for Physiotherapists

Endorsed by the NBA



**tech** global  
university



## Postgraduate Certificate Functional and Biomechanic Fitness Assessments for Physiotherapists

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

Website: [www.techtute.com/us/physiotherapy/postgraduate-certificate/functional-biomechanic-fitness-assessments-physiotherapists](http://www.techtute.com/us/physiotherapy/postgraduate-certificate/functional-biomechanic-fitness-assessments-physiotherapists)

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# 01

# Introduction

Apply to your daily practice the latest tools for fitness, functional and biomechanical assessment to achieve a rapid recovery in injured athletes who come to your office. For this purpose, we provide you with this very complete academic program, prepared by a team of specialists in the field, which is different from the rest due to the quality of its content.





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*Specialize in fitness, functional and biomechanical assessment and acquire superior training to treat injured athletes who require careful intervention”*

The main objective of this Postgraduate Certificate in Fitness, Functional and Biomechanical Assessment for Physiotherapists is to offer these professionals a superior training in this field that will allow them to work with greater safety when treating injured athletes, achieving greater benefits in their recovery in a fast way and avoiding possible relapses.

For this, this agenda will discuss different types of evaluations, among which we can highlight the genetic evaluation, which shows the genotypes of polymorphisms of certain genes that have greater or lesser susceptibility to both injury and the ability to recover, or biochemical evaluation, with markers of muscle damage, inflammatory processes, etc.. There will also be time to learn about functional movement assessment, which is an evaluation tool through individualized analysis of the dynamic and functional capacity of the locomotor apparatus, among other relevant aspects for the sports physiotherapist's practice.

It should be noted that, as it is an online program, the student is not conditioned by fixed schedules or the need to move to another physical location, but can access the contents at any time of the day, balancing their work or personal life with their academic life.

This **Postgraduate Certificate in Functional and Biomechanic Fitness Assessments for Physiotherapists** 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 sports rehabilitation
- ♦ The graphic, schematic, and practical contents with which they are created contain information that is indispensable for professional practice
- ♦ It contains exercises where the self-assessment process can be carried out to improve learning
- ♦ Algorithm-based interactive learning system for decision-making
- ♦ Its special emphasis on innovative methodologies in fitness, functional and biomechanical assessment
- ♦ 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 the study of this high-level program and improve your sports rehabilitation skills”*

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*This program is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in sports rehabilitation, you will obtain a program degree from the leading online university in Spanish: TECH”*

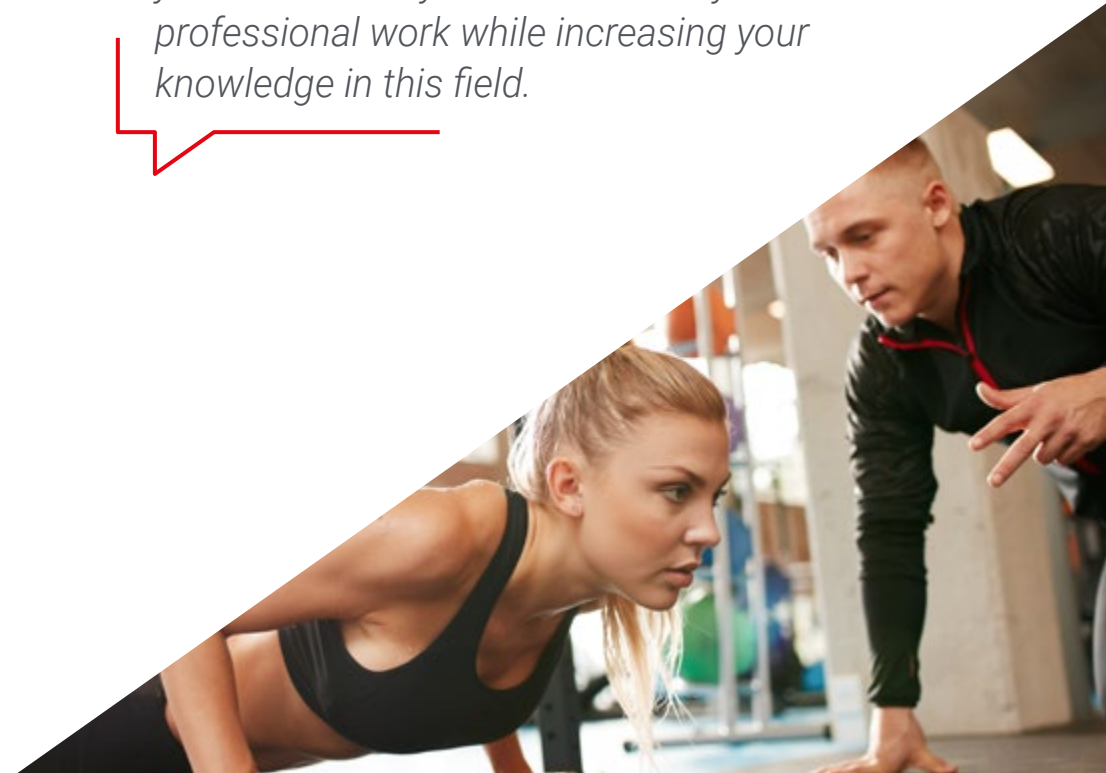
Its teaching staff includes professionals belonging to the field of physiotherapy, who bring to this training the experience of their work, in addition to recognized specialists from leading societies and prestigious universities.

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, whereby the physiotherapist 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 fitness, functional and biomechanical assessment.

*This program offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.*

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



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 the Functional and Biomechanic Fitness Assessments.





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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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- Acquire specialized knowledge in sports rehabilitation, injury prevention and functional recovery
- Assess the athlete from the point of view of physical, functional and biomechanical condition to detect aspects that hinder recovery or favor relapses in the injury
- Design both specific readaptation and recovery work, as well as individualized integral work
- Acquire a specialization in the pathologies of the locomotor system with the highest incidence in the population as a whole
- Evaluate and monitor the evolutionary process of recovery and/or rehabilitation of an athlete's or user's injury
- Acquire skills and abilities in readaptation, prevention and recovery of sports injuries
- Differentiate from an anatomical point of view the different parts and structures of the human body
- Improve the injured athlete's physical condition as part of the integral work with the objective of achieving a better and more efficient recovery after the injury





## Specific Objectives

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- Use biomechanics of movement as a key tool in the prevention and rehabilitation process
- Clarify the importance of nutritional, biochemical, genetic and quality of life assessment from the initial period to the end of the process
- Evaluate the different parameters related to physical fitness: strength, speed, flexibility, endurance, etc
- Detect anomalies that hinder or prevent a correct recovery/rehabilitation process



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

# 03

# Course Management

Our teaching team, experts in sports rehabilitation, have a wide prestige in the profession and are professionals with years of teaching experience who have come together to help you give a boost to your profession. To this end, they have developed this program with the latest developments in the field that will allow you to specialize and increase your skills in this sector.





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

## International Guest Director

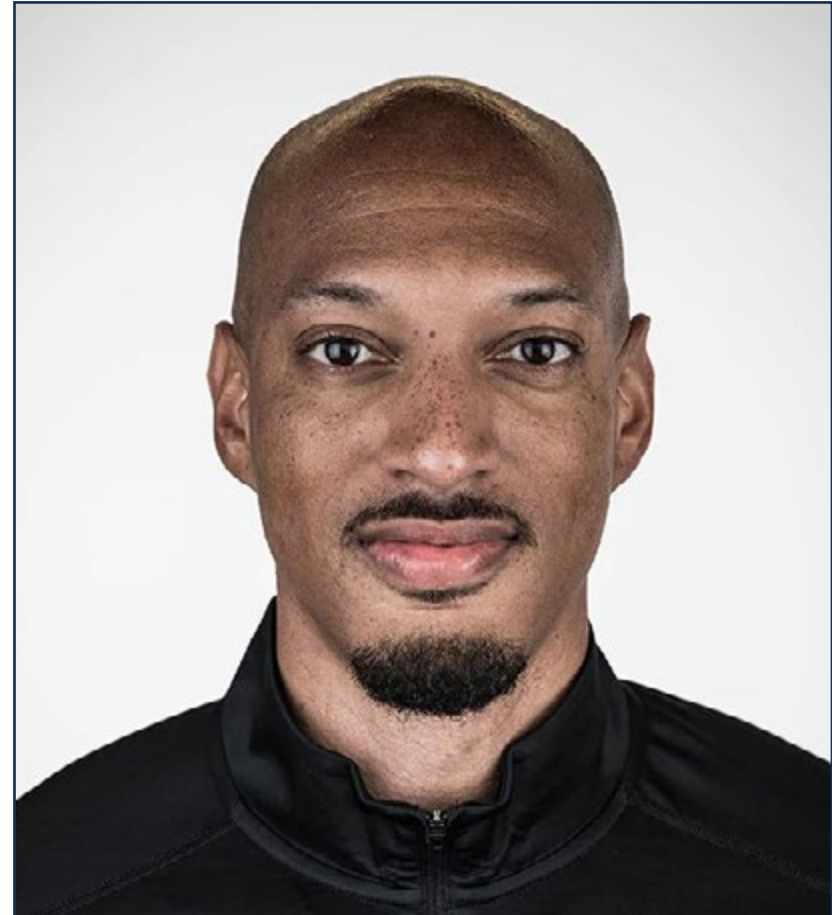
Charles Loftis, M.D., is a renowned specialist who serves as a sports performance therapist for the Portland Trail Blazers in the NBA. His impact on the world's premier basketball league has been significant, bringing distinguished expertise in creating strength and conditioning programs.

Prior to joining the Trail Blazers, he was the head strength and conditioning coach for the Iowa Wolves, implementing and overseeing the development of a comprehensive program for the players. In fact, his experience in the field of sports performance began with the establishment of XCEL Performance and Fitness, of which he was founder and head coach.

There, Dr. Charles Loftis worked with a wide range of athletes to develop strength and conditioning programs, as well as work on sports injury prevention and rehabilitation.

His academic background in the field of chemistry and biology provides him with a unique perspective on the science behind sports performance and physical therapy. As such, he holds CSCS and RSCC designations from the National Strength and Conditioning Association (NSCA), which recognize his knowledge and skills in the field. He is also certified in PES (Performance Enhancement Specialist), CES (Corrective Exercise Specialist) and dry needling.

With all of this, Dr. Charles Loftis is a vital member of the NBA community, working directly with both the strength and performance of elite athletes and the necessary prevention and rehabilitation of various types of sports injuries.



## Dr. Charles Loftis

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- Sports Performance Specialist with the Portland Trail Blazers - Oregon, United States
- Head strength and conditioning coach for the Iowa Wolves
- Founder and head trainer at XCEL Performance and Fitness
- Head performance coach for the Oklahoma Christian University men's basketball team
- Physical Therapist at Mercy
- Dr. in Physical Therapy from Langston University
- B.Sc. in Chemistry and Biology from Langston University

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*Thanks to TECH you will be able to learn with the best professionals in the world"*

## International Guest Director

Isaiah Covington is a highly skilled performance coach with extensive experience in treating and addressing various injuries in elite athletes. In fact, his professional career has been directed towards the NBA, one of the most important sports leagues in the world. He is the performance coach of the Bolton Celtics, one of the top teams in the Eastern Conference and one of the most promising teams in the United States.

His work in such a demanding league has made him specialize in maximizing the physical and mental potential of players. Key to this has been his past experience with other teams, such as the Golden State Warriors and the Santa Cruz Warriors. This has allowed him to work also in the field of sports injuries, deepening in the prevention and rehabilitation of the most frequent injuries in elite athletes.

In academia, his interests have been in the fields of kinesiology, exercise science and high performance sport. All of this has led him to excel prolifically in the NBA, working day in and day out with some of the most important basketball players and coaching staffs in the world.





## Mr. Isaiah Covington

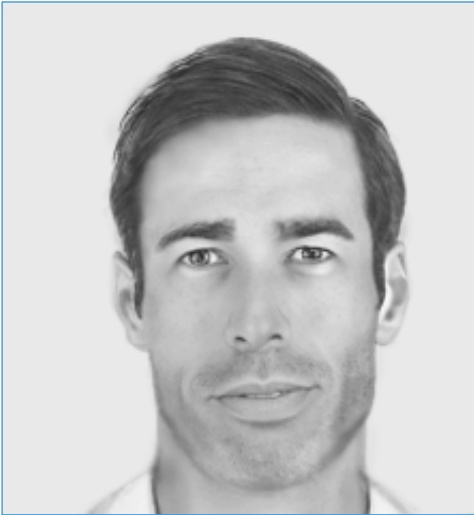
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- Boston Celtics Performance Coach - Massachusetts, U.S.A
- Golden State Warriors Performance Coach
- Santa Cruz Warriors Head Performance Coach
- Performance Coach at Pacers Sports & Entertainment
- B.S. in Kinesiology and Exercise Science from the University of Delaware
- Specialization in Training Management
- Master's Degree in Kinesiology and Exercise Science, Long Island University
- Master's Degree in High Performance Sport from the Catholic University of Australia

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

## Management



### Dr. Pedro José González Matarín

- ◆ Health Science Researcher and professor
- ◆ Technical researcher of Health Education in Murcia
- ◆ Teacher and researcher at the University of Almeria
- ◆ Teacher and researcher at the University of Almeria
- ◆ High Performance Coach
- ◆ Doctor in Health Sciences
- ◆ Graduate in Physical Education
- ◆ Master's Degree in Functional Recovery in Physical Activity and Sport
- ◆ Master's Degree in Regeneration Medicine
- ◆ Master's Degree in Physical Activity and Health
- ◆ Master in Dietetics and Diet Therapy
- ◆ Member of: SEEDO, AEEM

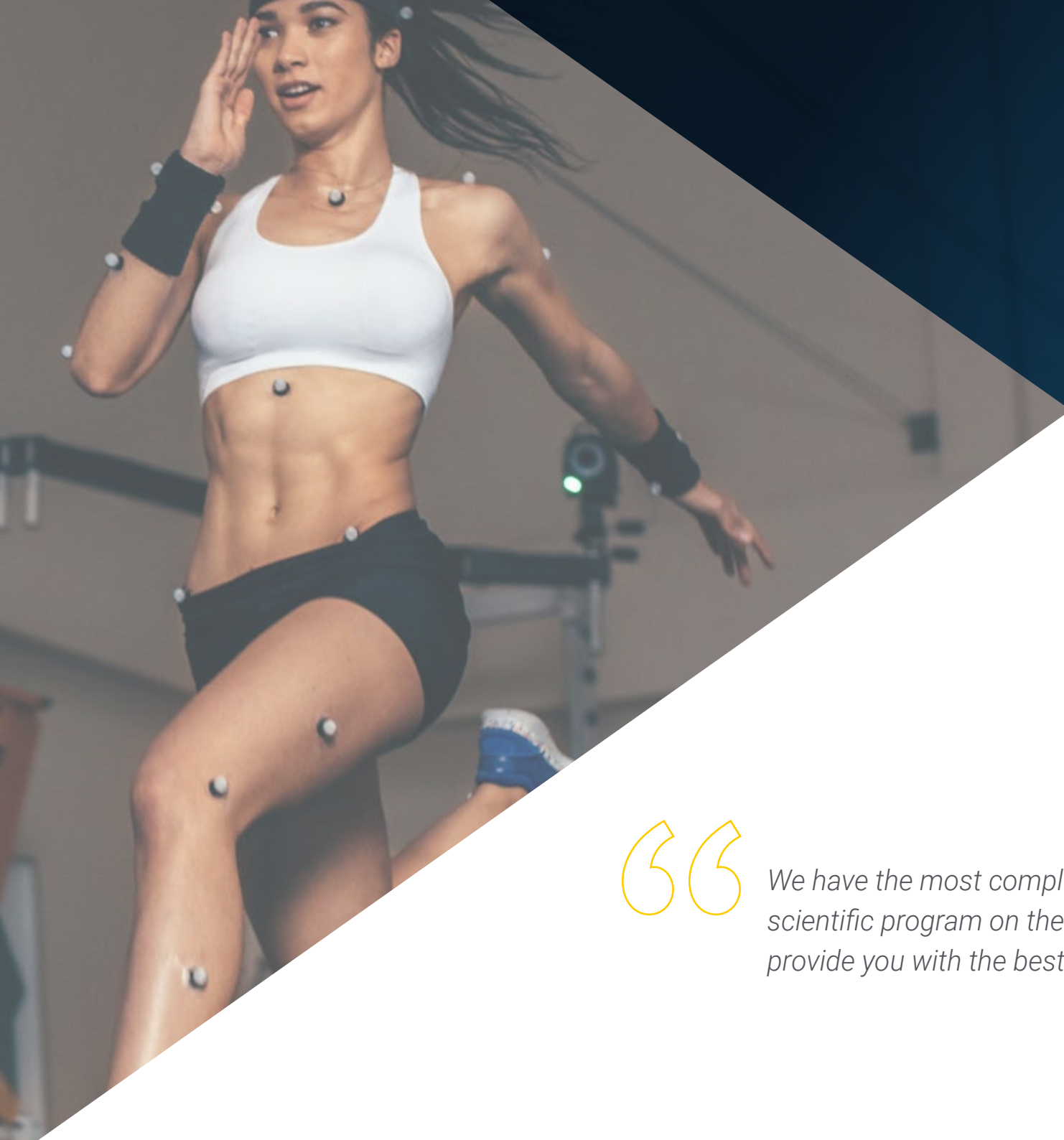


# 04

# 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 the current relevance of quality training in the field of sports rehabilitation; and committed to quality teaching through new educational technologies.



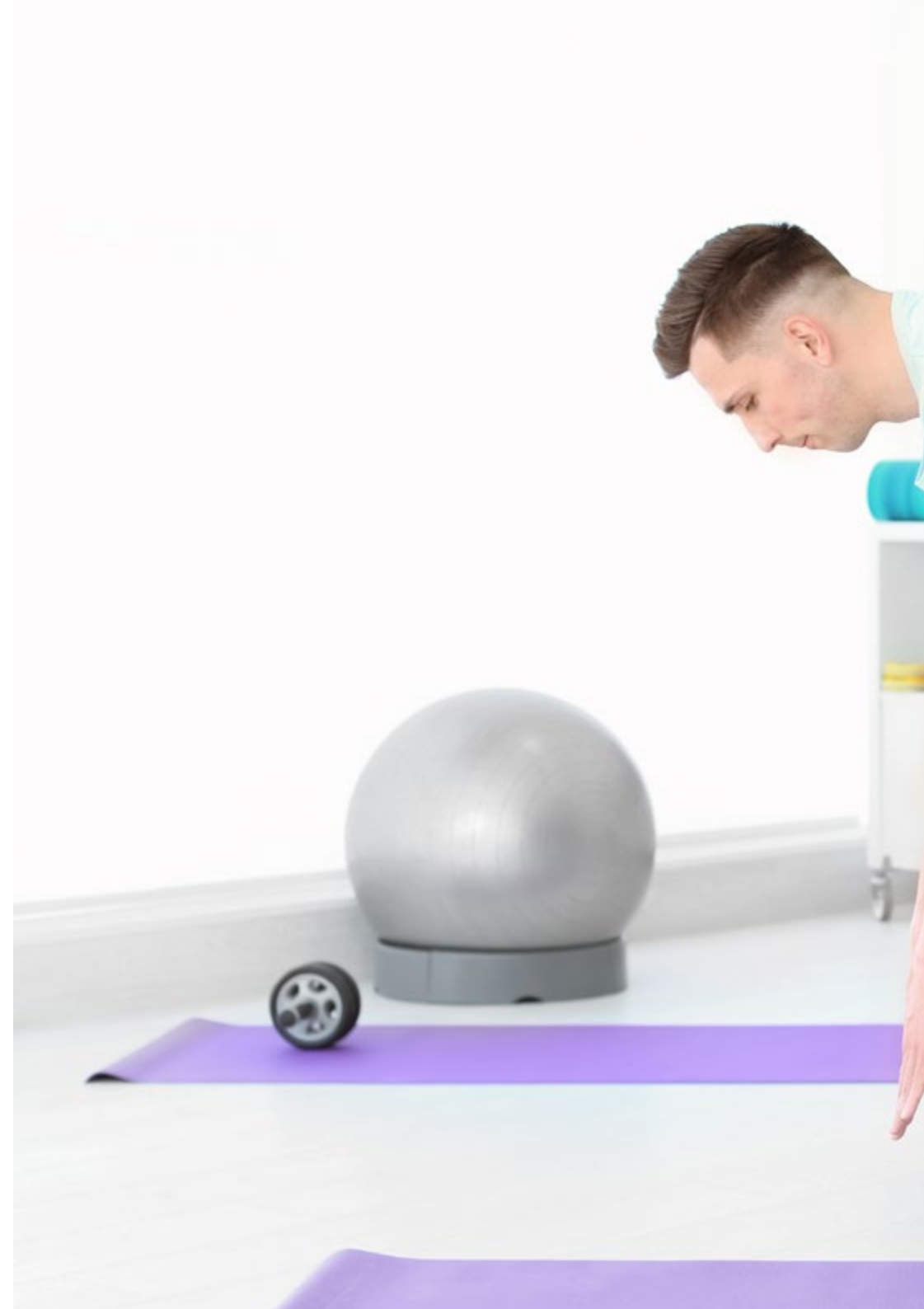


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*We have the most complete and up-to-date scientific program on the market. We want to provide you with the best education”*

## Module 1. Fitness, Functional and Biomechanical Assessment

- 1.1. Anatomy and Kinesiology
- 1.2. The Science of Human Motion
- 1.3. Applied Biomechanics:
- 1.4. Initial Customer Inquiry
- 1.5. Physical Fitness Testing Protocols and Standards
- 1.6. Functional Movement Assessment
  - 1.6.1. Motion Detection, Testing and Assessment
  - 1.6.2. Pantalla de Movimiento Funcional (FMS)
  - 1.6.3. Selective Assessment of Functional Movement
  - 1.6.4. Specific Functional Performance Tests
- 1.7. Nutritional Assessment, Genetic Evaluation, Biochemistry and Quality of Life
- 1.8. Biomechanics
  - 1.8.1. Biomechanical Fundamentals
  - 1.8.2. Biomechanics of Human Movement
  - 1.8.3. Muscular Control of Movement
  - 1.8.4. Biomechanics of Resistance Exercise
- 1.9. Evaluation of Physical Fitness
- 1.10. Risk Detection and Stratification





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*A unique, key, and decisive educational 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

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 Functional and Biomechanic Fitness Assessments for Physiotherapists 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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*Include in your qualifications a Postgraduate Certificate in Fitness, Functional and Biomechanical Assessment for Physiotherapists A high quality added value for any medical professional"*

This program will allow you to obtain your **Postgraduate Certificate in Functional and Biomechanic Fitness Assessments for Physiotherapists** 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.

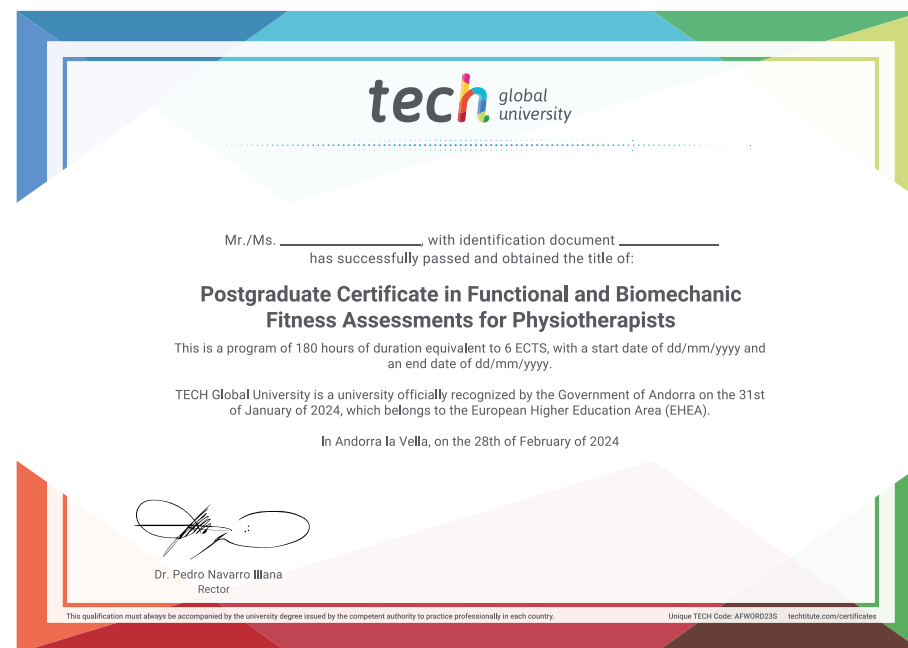
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Functional and Biomechanic Fitness Assessments for Physiotherapists**

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.



**Postgraduate Certificate**  
Functional and Biomechanic  
Fitness Assessments  
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