

Postgraduate Certificate Exercise in Functional Sports Rehabilitation

Endorsed by the NBA





Postgraduate Certificate Exercise in Functional Sports Rehabilitation

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/exercise-functional-sports-rehabilitation

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 20

05

Methodology

p. 24

06

Certificate

p. 32

01

Introduction

The main objective of functional rehabilitation is to train the injured subject, with body damage or dysfunction, performing three-dimensional movements and preparing the body for its reincorporation into sports activity. For this reason, this academic program aims to specialize physicians so that they acquire superior education in this field, which will enable them to perform successful interventions with their patients





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Planning appropriate exercise programs for each athlete is essential for functional recovery. Specialize with us in this field and give a boost to your profession"

Rehabilitation physicians will find in this Postgraduate Certificate in Exercise in Functional Sports Rehabilitation the most complete education today, to be able to apply it to their daily practice, so that they are able to achieve adequate recoveries of their patients, so that they can gradually return to their usual sports practice

Specifically, this Postgraduate Certificate will show what functional rehabilitation consists of, how the proprioception mechanism is produced, as well as the joint receptors and the control capacity at a neuromuscular level. In addition, the characteristics of the central nervous system and how it intervenes in motor control will be discussed. On the other hand, we will analyze how to restore proprioception and improve neuromuscular control

The professional will also have the opportunity to delve into the study of therapeutic Pilates as a technique for the improvement and evolution of functional capacity in cases such as low back pain, neck pain, multiple sclerosis, arthritis, after the implantation of hip, shoulder and knee prostheses, for the recovery of the rotator cuff, or after arthroscopic surgery, sprains, scoliosis, impingement, stroke, Parkinson's, etc.

Finally, functional and advanced rehabilitation work on common pathologies and injuries in the cervical and thoracic spine will be addressed, rehabilitating neck and lumbar spine injuries and pain, reducing the high incidence of low back pain and disability caused by osteoarthritis and sciatica. You will also learn how to work on scapular stability and improve mobility and strength of the hip with open and closed chain movements, how to perform exercises that improve control and dynamic stability of the knee and how to work on control, stability and strength for the rehabilitation of sprains, tendinopathy and plantar fasciitis

One of the main advantages of this academic program is 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 Exercise in Functional Sports Rehabilitation** 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 Exercise in Functional Sports Rehabilitation
- ◆ The graphic, schematic and practical contents of the course are designed to provide all the essential specialization 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 Exercise in Functional Sports Rehabilitation design
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



Immerse yourself in the study of this high-level course and improve your skills and competencies as a sports injury rehabilitation physician"

“ *This Postgraduate Certificate is the best investment you can make in the selection of an updated program for two reasons: in addition to updating your knowledge in Exercise in Functional Sports Rehabilitation, you will obtain a degree from TECH Technological University*”

It includes, in its teaching staff, professionals belonging to the field of Sports Rehabilitation, who pour into this education the experience of their work, in addition to recognized 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 physician must try to solve the different professional practice situations that arise throughout the program. To do so, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Exercise in Functional Sports Rehabilitation

The Postgraduate Certificate allows you to exercise in simulated environments that provide an immersive learning program in order to learn in real situations.

This 100% online Postgraduate Certificate 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 physician achieves a practical and rigorous mastery of Exercise in Functional Sports Rehabilitation





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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

- ◆ 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, increasing professional possibilities as a personal trainer
- ◆ 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

- ◆ Analyze the different possibilities offered by functional training and advanced rehabilitation
- ◆ Apply the Pilates method as an integral system for the rehabilitation of the locomotor system in functional recovery
- ◆ Plan specific Pilates exercises and programs for the different areas of the locomotor system with and without apparatus



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

03

Course Management

This teaching team, experts in Sports Rehabilitation, have extensive prestige in the profession and are professionals with years of teaching experience who have come together to help students give a boost to their profession. To this end, they have developed this Postgraduate Certificate with recent updates on the subject that will allow for education and increase skills in this sector



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

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 to the **NBA**, one of the most important sports leagues around the world. He is the **performance coach of the Bolton Celtics**, one of the most important teams in the Eastern Conference and with the greatest projection in the United States.

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

In the academic field, his interest has focused on the field of kinesiology, exercise science and high performance sport. All of this has led him to excel prolifically in the NBA, working day-to-day with some of the top basketball players and coaching staffs from around the world.



Dott. Covington, Isaiah

- Performance coach of the Golden State Warriors
- Head Performance Coach of the Santa Cruz Warriors
- 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 from Long Island University
- Master's Degree in Performance Sport from Australian Catholic University

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*Thanks to TECH you will
be able to learn with the
world's best professionals”*

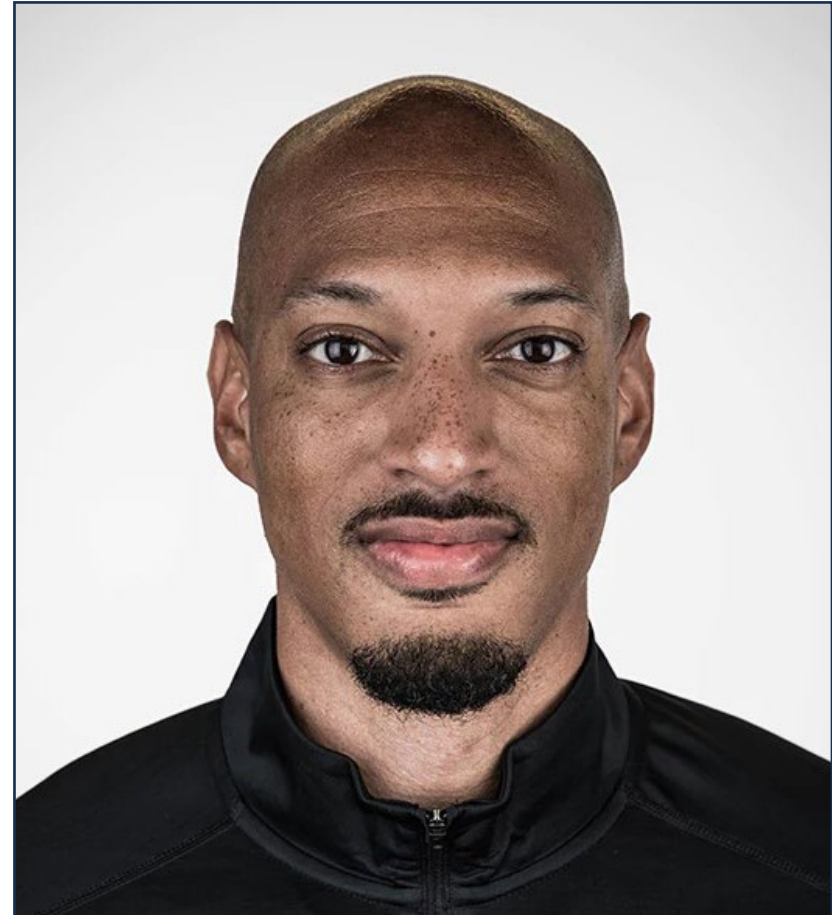
International Guest Director

Dr. Charles Loftis 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 player program. In fact, his experience in the sports performance field began with the establishment of XCEL Performance and Fitness, of which he was the founder and head coach. There, Dr. Charles Loftis worked with a wide range of athletes to develop strength and conditioning programs, in addition to working on the **prevention and rehabilitation of sports injuries**.

His academic background in the field of chemistry and biology gives him 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.

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



Dr Loftis, Charles

- Head strength and conditioning coach for the Iowa Wolves
- Founder and head coach at XCEL Performance and Fitness
- Head performance coach for the Oklahoma Christian University men's basketball team
- Physical Therapist at Mercy
- Doctor of Physical Therapy from Langston University
- B.S. in Chemistry and Biology from Langston University

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Thanks to TECH you will be able to learn with the world's best professionals”

Management



Dr. González Matarín, Pedro José

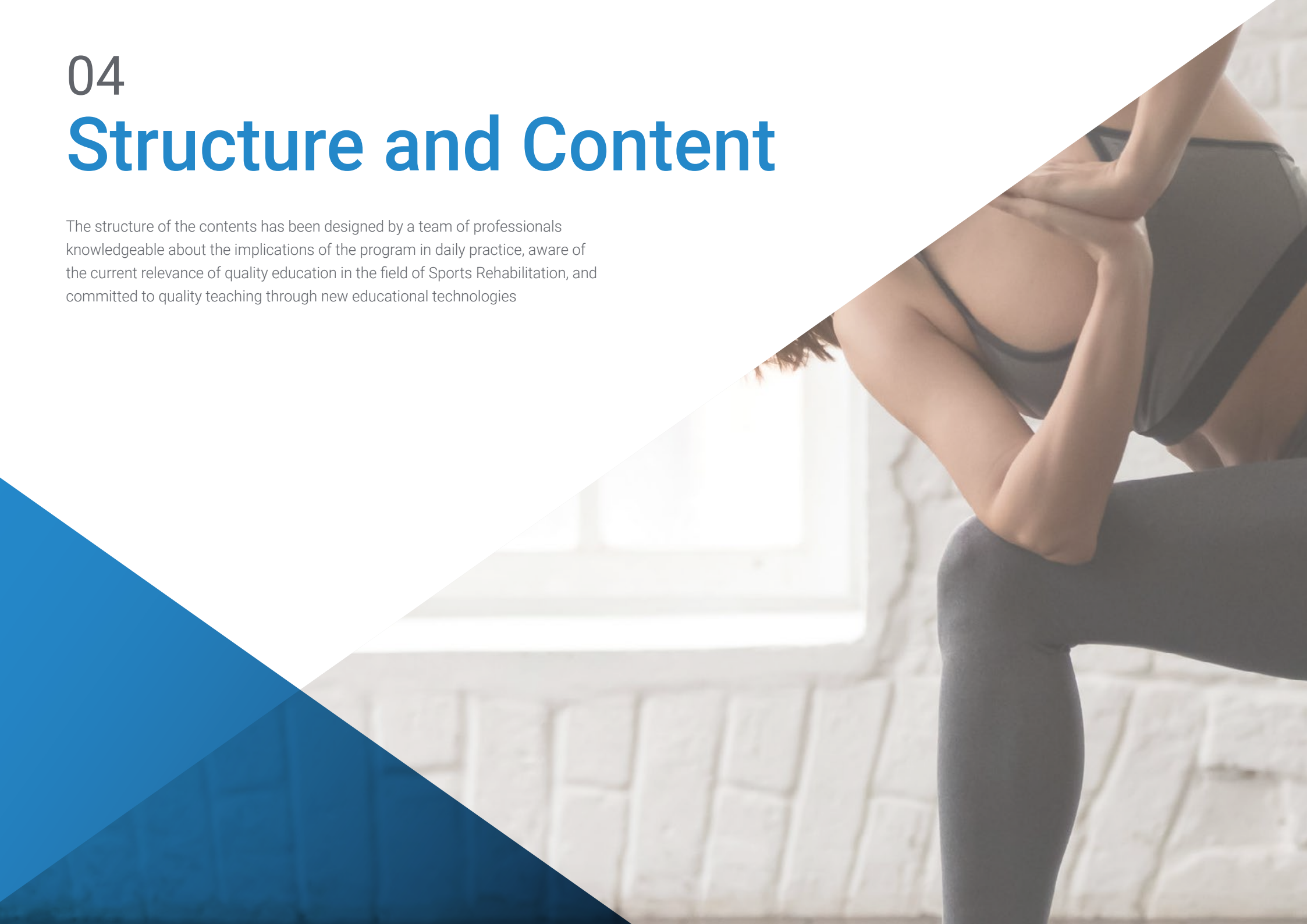
- ♦ Doctor in Health Sciences
- ♦ Degree in Physical Education Teacher
- ♦ Master's Degree in Functional Recovery in Physical Activity and Sport
- ♦ Master's Degree in Regeneration Medicine
- ♦ Master's Degree in Physical Activity and Health
- ♦ Master in Dietetics and Diet Therapy
- ♦ Postgraduate in Obesity
- ♦ Postgraduate in Nutrition and Dietetics
- ♦ Postgraduate Degree in Genomic Medicine, Pharmacogenetics and Nutrigenetics
- ♦ Associate Professor Doctor and Private University (DEVA)
- ♦ PDI collaborator at UNIR, VIU, UOC and TECH



04

Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable about the implications of the program in daily practice, aware of the current relevance of quality education 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 academic program in the market. We want to put the best education at your fingertips"

Module 1. Exercise for Functional Recovery

- 1.1. Functional Training and Advanced Rehabilitation
 - 1.1.1. Function and Functional Rehabilitation
 - 1.1.2. Proprioception, Receptors and Neuromuscular Control
 - 1.1.3. Central Nervous System: Integration of Motor Control
 - 1.1.4. Principles for the Prescription of Therapeutic Exercise
 - 1.1.5. Restoration of Proprioception and Neuromuscular Control
 - 1.1.6. The 3-Phase Rehabilitation Model
- 1.2. The Science of Pilates in Rehabilitation
- 1.3. Principles of Pilates
- 1.4. The Integration of Pilates in Rehabilitation
- 1.5. Methodology and Equipment Necessary for Effective Practice
- 1.6. Cervical and Thoracic Spine
- 1.7. The Lumbar Spine
- 1.8. Shoulder and Hip
- 1.9. Knee
- 1.10. Foot and Ankle





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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

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. Specialists 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. Gervas, 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 in the physician's professional 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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student 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.

Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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 TECH's 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 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.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. 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 the videos as many times as you like.



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".



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 Exercise in Functional Sports Rehabilitation 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 Exercise in Functional Sports Rehabilitation** contains the most complete and up-to-date scientific program on 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 committees.

Title: **Postgraduate Certificate in Exercise in Functional Sports Rehabilitation**

Official N° of Hours: **150 h.**

Endorsed by the NBA



*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.

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



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