

# Postgraduate Certificate

## Pilates in Spinal Disorders





## Postgraduate Certificate Pilates in Spinal Disorders

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

Website: [www.techtute.com/us/sports-science/postgraduate-certificate/pilates-spinal-disorders](http://www.techtute.com/us/sports-science/postgraduate-certificate/pilates-spinal-disorders)

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# 01

# Introduction

The Pilates Method is more than a sport to get in shape, as it has a very positive effect on the back, especially in the lumbar area, which is the part that causes the most pain and discomfort among the population. This pathology is the first cause of chronic pain, where at least 20% of the people suffer from it. Due to the relevance that this discipline has taken nowadays, TECH has created this program with the purpose of providing the professionals of the sports world with exclusive content related to scientific and updated information about the treatments with Pilates applicable to the different alterations of the spine. All this in an online format and with an experienced team of teachers.



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*TECH is innovation and exclusivity, that is why it offers the specialist the most revolutionary pedagogical material in the area of Pilates"*



The Pilates Method promotes power, flexibility and control over muscle tone and body movement in a few sessions. It is also effective as a rehabilitation and physiotherapy technique, which has made it a widespread practice among the population and sports professionals. Also, depending on the ability of each person, it is possible to adapt the Pilates session, both for people with mobility difficulties and elite athletes, whose goal is to improve the technique or prevent injuries.

In this sense, research in this area of knowledge has continued to advance, managing to incorporate this discipline in multiple sports as a complement to the physical preparation of athletes, making it clear that professionals in Sports Science must remain at the forefront in this area. This program will provide the specialist with news about Pilates in Spinal Disorders and the main problems in this area of the body and its approach.

In this way, the graduates will reinforce their knowledge in specific aspects related to the differentiation of the applications in Pilates exercises and the adaptations to be made for each person. A program that integrates a specialized teaching team and at the same time, supported with quality multimedia content that offers dynamism and comfort with the online modality.

Also, TECH focuses on didactic methodology from excellence and comfort, that is why this academic proposal offers the best update, being a program that provides flexibility. The graduates only need a device with an Internet connection to easily access the virtual platform from the comfort of wherever they are.

This **Postgraduate Certificate in Pilates in Spinal Disorders** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Physiotherapy and Pilates
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- ♦ Availability to access content from any fixed or portable device with internet connection



*At TECH you will be able to acquire the necessary skills to apply the new physical preparation techniques based on Pilates"*

“

*The Pilates Method is a discipline that has evolved over the years and with TECH you will have at your fingertips the updates of this field of study”*

The program's teaching staff includes professionals from the sector who contribute their work 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 education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby students must try to solve the different professional practice situations that arise throughout the program. For this purpose, students will be assisted by an innovative, interactive video system created by renowned and experienced experts.

*Delve into disc, muscle and joint pathology from the comfort of your home.*

*You will only need an electronic device with an Internet connection availability to access the virtual platform from the comfort of your home.*



# 02 Objectives

This program seeks for the graduate to enhance their skills and abilities through a unique and innovative material related to Pilates in Spinal Disorders. Therefore, TECH provides different technological resources, ensuring that the development of this academic program is developed successfully. Therefore, upon completion of this Postgraduate Certificate, the students will have nurtured their knowledge in the specific exercise protocols for the recovery process of injuries and biomechanics of the spine.







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*With this program you will guarantee the success of the development and completion of the Postgraduate Certificate, ensuring the promotion in your professional career"*



## General Objectives

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- ♦ Enhance knowledge and professional skills in the practice and teaching of Pilates exercises on the floor, on different machines and with implements
- ♦ Differentiate the applications of Pilates exercises and the adaptations to be made for each patient
- ♦ Establish an exercise protocol adapted to the symptoms and pathology of each patient
- ♦ Delimit the progressions and regressions of the exercises according to the different phases in the recovery process of an injury
- ♦ Avoiding exercises that are contraindicated according to the previous assessment of patients and clients
- ♦ Handle in depth the apparatus used in the Pilates Method
- ♦ Provide the necessary information to be able to search for scientific and updated information on Pilates treatments applicable to different pathologies
- ♦ Analyze the needs and improvements of Pilates equipment in a therapeutic space destined to Pilates exercise
- ♦ Develop actions that improve the effectiveness of Pilates exercises based on the principles of the method
- ♦ Perform correctly and analytically the exercises based on the Pilates Method
- ♦ Analyze the physiological and postural changes that affect the pregnant woman
- ♦ Design exercises adapted to the woman in the course of pregnancy until delivery
- ♦ Describe the application of the Pilates Method in high-level athletes





## Specific Objectives

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- ◆ Inquire into the main problems of the Spine and their approach
- ◆ Update knowledge on the main problems of the Back and their approach
- ◆ Apply specific exercise protocols for the injury recovery process



*Strengthen your skills on the Pilates exercises best suited to work on the main problems of the Back"*



# 03

## Course Management

TECH maintains a philosophy based on academic excellence in all its programs. In order to successfully achieve this goal, TECH carries out a thorough selection process of each and every one of its teachers. In this way, the graduates will have access to content developed by a teaching team specialized in Therapeutic Pilates, Osteopathy of the Locomotor System and Biomechanics applied to the assessment of damage and advanced techniques in Physiotherapy. They robust experience and solid knowledge base will allow students to obtain a first level update and resolve doubts about the content during the course of the program.





“

*TECH thinks in academic excellence and this is achieved with a team specialized in the most advanced techniques to improve the athlete's performance with Pilates"*



## Management



### Mr. Sergio González Arganda

- Physiotherapist of Atlético Madrid Football Club
- CEO Physio Domicilio Madrid
- Professor in the Professional Master's Degree in Physical Preparation and Sports Rehabilitation in Soccer
- Professor in the Postgraduate Diploma in Clinical Pilates
- Professor in the Professional Master's Degree in Biomechanics and Sports Physiotherapy
- Professional Master's Degree in Osteopathy of the Locomotor System by the Madrid School of Osteopathy
- Postgraduate Diploma in Pilates Rehabilitation by the Royal Spanish Gymnastics Federation
- Professional Master's Degree in Biomechanics Applied to Injury Assessment and Advanced Techniques in Physiotherapy
- Graduate in Physiotherapy at Comillas Pontifical University



# 04

## Structure and Content

This Postgraduate Certificate has been designed and conceived according to the most recent research in the field of Pilates, establishing a syllabus that provides an important content on Pilates in Spinal Disorders. This program is oriented to provide advanced material on the different pathologies, their syndromes, typologies and conclusions. All this, by means of a great variety of multimedia tools that offer dynamism to this university program.







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*One of the purposes of this program is to provide the expert with exclusive content on Lumbar Spine Pathology"*

## Module 1. Pilates in Spinal Disorders

- 1.1. Basic Anatomical Recall
  - 1.1.1. Osteology of the Spine
  - 1.1.2. Myology of the Spine
  - 1.1.3. Biomechanics of the Spine
  - 1.1.4. Conclusions
- 1.2. Frequent Pathologies Suitable for Treatment with Pilates
  - 1.2.1. Growth Pathologies
  - 1.2.2. Pathologies in the Elderly Patient
  - 1.2.3. Pathologies in the Sedentary Patient
  - 1.2.4. Pathologies in the Athlete
- 1.3. Exercises Indicated in MATT, on Machines and with Implements. General Protocol
  - 1.3.1. Lengthening Exercises
  - 1.3.2. Central Stabilization Exercises
  - 1.3.3. Joint Mobilization Exercises
  - 1.3.4. Strengthening Exercises
  - 1.3.5. Functional Exercises
- 1.4. Disk Pathology
  - 1.4.1. Pathomechanics
  - 1.4.2. Disc Syndromes
  - 1.4.3. Differences Between Types of Pathologies
  - 1.4.4. Good Practices
- 1.5. Articular Pathology
  - 1.5.1. Pathomechanics
  - 1.5.2. Joint Syndromes
  - 1.5.3. Types of Pathology
  - 1.5.4. Conclusions
- 1.6. Muscular Pathology
  - 1.6.1. Pathomechanics
  - 1.6.2. Muscle Syndromes
  - 1.6.3. Types of Pathology
  - 1.6.4. Conclusions







- 1.7. Cervical Spine Pathology
  - 1.7.1. Symptoms
  - 1.7.2. Cervical Syndromes
  - 1.7.3. Specific Protocols
  - 1.7.4. Conclusions
- 1.8. Dorsal Spine Pathology
  - 1.8.1. Symptomatology
  - 1.8.2. Dorsal Syndromes
  - 1.8.3. Specific Protocols
  - 1.8.4. Conclusions
- 1.9. Lumbar Spine Pathology
  - 1.9.1. Symptoms
  - 1.9.2. Lumbar Syndromes
  - 1.9.3. Specific Protocols
  - 1.9.4. Conclusions
- 1.10. Sacroiliac Pathology
  - 1.10.1. Symptoms
  - 1.10.2. Lumbar Syndromes
  - 1.10.3. Specific Protocols
  - 1.10.4. Conclusions



*The case studies will provide you with a much closer look at the Pilates exercises suitable for each spinal pathology"*

# 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.







“

*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

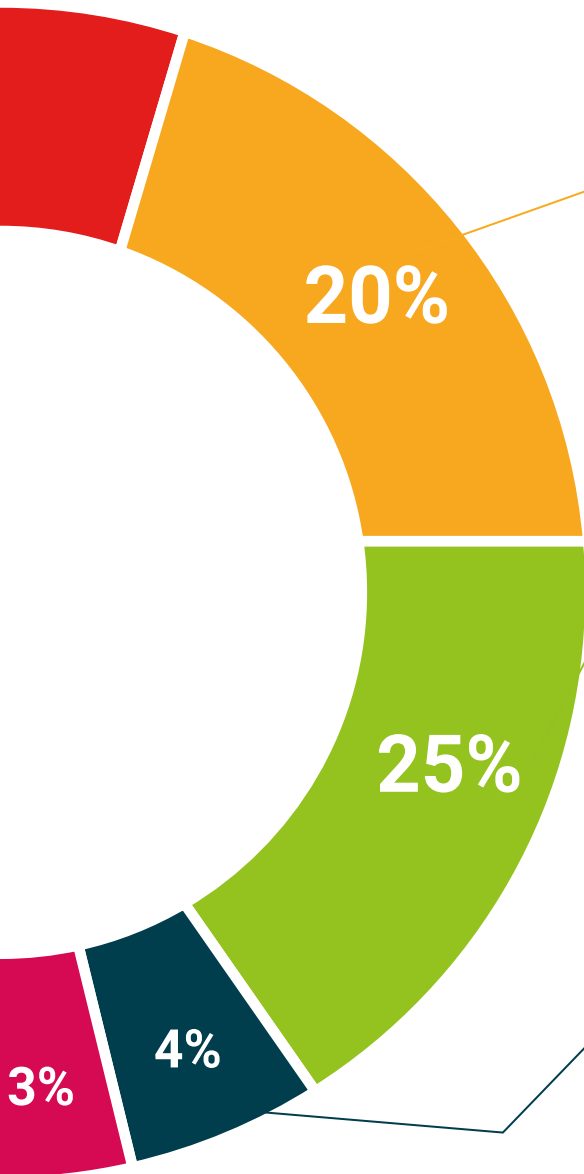
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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 Pilates in Spinal Disorders 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 Pilates in Spinal Disorders** contains the most complete and up-to-date scientific 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 evaluation committees.

Title: **Postgraduate Certificate in Pilates in Spinal Disorders**

Official N° of Hours: **150 h.**



\*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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- » Exams: online

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