

# Postgraduate Certificate Spine Injuries in Sports

Endorsed by the NBA





## Postgraduate Certificate Spine Injuries in Sports

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/spine-injuries-sports](http://www.techtute.com/us/medicine/postgraduate-certificate/spine-injuries-sports)

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# 01

# Introduction

In the 1980s, Balias classified sports according to their potential consequences on the spine. As the axis of the body, the backbone frequently suffers the consequences of sports practice at all levels. In young athletes, pain at this level often corresponds to injuries, while in amateur sports, spinal pain is often mainly due to degenerative phenomena. Based on this, this 100% online program offers physicians a update on how each sport specifically affects the different vertebral segments, and on training modification options that can prevent, avoid or minimize pain in the spine. The unique flexibility of this program also allows it to be balanced with the most demanding professional and personal activity.







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*Within the therapeutic arsenal available, you will recognize which of the newest treatments have a proven benefit for athletes and when to use them”*

This Postgraduate Certificate in Spine Injuries in Sports will develop the specific spine pathology biomechanics in sports, as well as the causes, injury mechanisms, diagnosis and treatments, both conventional and current among the most common pathologies.

This program updates physicians on cervical pathology, spondylolysis-spondylolisthesis, disc pathology and weightlifting and bodybuilding, among others. All this while keeping in mind and delving deeper into the prominence that certain sports may have in vertebral deformities, as well as the limitations professional athletes may find when suffering such deformities.

In the course of six weeks, physicians will expand the scope of application of Sports Medicine, understanding the competitive advantages it brings in treating spinal injuries. Furthermore, the program enjoys the best 100% online study methodology, which eliminates the need to attend classes in person and to follow a predetermined schedule.

This **Postgraduate Certificate in Spine Injuries in Sports** contains the most complete and up-to-date academic program on the market. Its most notable features are:

- ◆ Practical cases presented by experts in Sports medicine
- ◆ The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ 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



*Empower your medical sessions with an advanced program that includes an interactive learning system"*

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*The sports field presents advanced challenges in Spinal Injuries that you will address in a new and updated way thanks to the contents of this Postgraduate Certificate”*

*Through practical and didactic cases, you will understand the benefits that new diagnostic and therapeutic alternatives can bring to spinal problems.*

*Do not miss the opportunity to learn about the latest advances in treating spinal orthoses in this Postgraduate Certificate.*

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 training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, which means the student must try to solve the different real-life situations of that arise throughout the academic program. For this purpose, the student will be assisted by an innovative, interactive video system created by renowned and experienced experts.



# 02 Objectives

Since Sports Medicine is such a broad and continuously evolving area, the framework of this Postgraduate Certificate aims to provide physicians with a broad vision of the most important innovations and developments in the area of Sports Injuries to the Spine. That way, they will have greater insight to incorporate the most innovative techniques presented throughout the syllabus into their daily work.







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*You will delve into the real benefit that can be expected from new therapeutic alternatives, which promise swift recovery from injuries”*



## General Objectives

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- ◆ Study the different injuries that can occur in different sports
- ◆ Know the most frequent upper limb pathologies in athletes
- ◆ Explore the radiological findings for upper limb pathologies
- ◆ Know the most frequent lower limb injuries in athletes, their etiology and injury mechanisms
- ◆ Learn how to perform correct clinical assessments
- ◆ Know the most effective diagnostic methods and treatment options
- ◆ Know different situations in which exercise and sport have differential aspects from the general population
- ◆ Know the benefits and risks of sport in certain diseases
- ◆ Explore the different therapeutic modalities to prevent and treat sports injuries, their indications and benefits
- ◆ Acquire more specific and current knowledge in the field of sports nutrition and dietetics for specific cases of sports activity and sports nutritional supplementation
- ◆ Gain in-depth knowledge of the meaning of doping, its origins, doping substances and their consequences on health, detection techniques, legal bases of regulation and the methods to fight against it, as well as its prevention strategies







## Specific Objectives

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- ◆ Know spinal injury biomechanics in athletes Injury-inducing movements: How to train the athlete to avoid them and, according to the location and characteristics of the pain, which segment or structure to think about at the time of diagnosis
- ◆ Distinguish which sports can produce a negative evolution of vertebral deformities and which combinations deformity/ specific sport present a greater tendency toward spinal injuries or pain
- ◆ Investigate what real benefit can be expected from new therapeutic alternatives that promise rapid recovery from injuries or the disappearance of spinal pain where classical treatments have failed



*This program integrates real cases compiled by the teaching staff, so you can take advantage of the content and contextualize each topic to the fullest”*

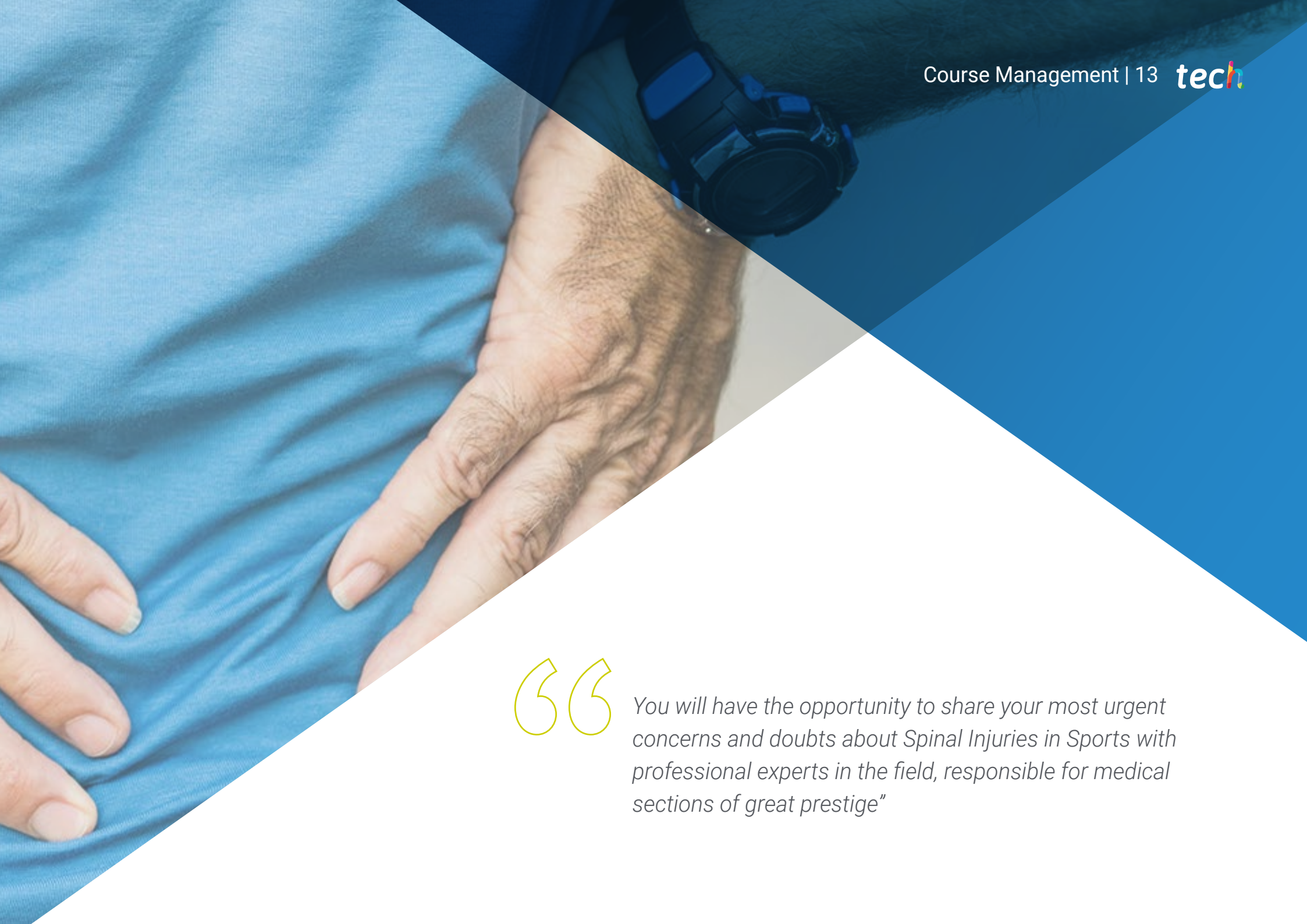
03

# Course Management

The faculty assembled to impart this program will provide physicians with the opportunity to receive the best in-depth training in Spinal Injuries in Sports. TECH assures its students that the professors have extensive experience in Sports Medicine, which guarantees a high quality approach to the best techniques for specialists to update their skills during the program.







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*You will have the opportunity to share your most urgent concerns and doubts about Spinal Injuries in Sports with professional experts in the field, responsible for medical sections of great prestige”*

## International Guest Director

As President of the Department of Physical Medicine and Rehabilitation at the Mayo Clinic in Arizona, Dr. Arthur De Luigi is one of the leading exponents in the field of Sports Medicine. In fact, he is the director of this specialty at the same clinic, also dedicating himself to the areas of pain medicine, brain injury medicine and musculoskeletal ultrasound.

Internationally, he is recognized as a leading figure in Adaptive Sports Medicine, serving as the director and lead physician for both the U.S. Paralympic Alpine Ski Team and the U.S. Para-Snowboard Team. In this role, he has served as a physician on the U.S. Olympic Committee, performing his work at the Colorado Olympic Training Center.

In fact, his involvement in sports is considerable, as he has treated players in basketball, soccer, soccer, golf, baseball, field hockey and other sports. Thus, he is the medical director of the Washington Wizards and Washington Mystics teams, being part of the medical staff of Phoenix Rising FC, Arizona Coyotes, Washington Nationals and DC United. He has also served as co-medical director of the Phoenix Open and chief medical advisor for the American 7 Football League.

In addition, he has had a prominent role on concussion task forces and research groups, including the NBA's own. His experience also extends to the U.S. Army, having held the rank of major and participated as a medic in Operation Iraqi Freedom. For this, he received numerous awards, including the Bronze Star and the Superior Unit Decoration.



## Dr. De Luigi, Arthur

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- ♦ Director of Sports Medicine - Mayo Clinic Arizona
- ♦ President of the Department of Physical Medicine and Rehabilitation at the Mayo Clinic - Scottsdale/Phoenix, Arizona.
- ♦ Phoenix Rising FC Team Physician
- ♦ Arizona Coyotes Team Physician
- ♦ Medical Director at Kilogear Cut
- ♦ Special Olympics Arizona Medical Director
- ♦ Co-Medical Director, Waste Management Phoenix Open
- ♦ Chief Medical Advisor for the American 7 Football League
- ♦ Professor of Rehabilitation Medicine at Georgetown University
- ♦ Director of Electrodiagnostic, Physical Medicine and Rehabilitation at Blanchfield Army Community Hospital, Fort Campbell
- ♦ Director of Research at Fort Belvoir Community Hospital
- ♦ Director of Sports Medicine at MedStar Montgomery Medical Center
- ♦ Team Physician, Washington Mystics
- ♦ Chief Medical Officer, Washington Wizards
- ♦ Doctor of Osteopathic Medicine, Lake Erie College of Osteopathic Medicine
- ♦ U.S. Army Major
- ♦ Graduate in Biology and Chemistry from George Washington University
- ♦ Resident manager at Walter Reed Army Medical Center
- ♦ Master's Degree of Science in Health Management from Lake Erie College of Osteopathic Medicine
- ♦ Superior Unit Decoration from the U.S. Army
- ♦ Bronze Star awarded by the U.S. Army



# 04

# Structure and Content

This course introduces medical professionals to the updated knowledge of the diagnosis and treatment of spinal injuries in sports. It is, therefore, a very complete program that addresses a range of topics, from pathology biomechanics and spine injury in sports, to weightlifting and bodybuilding, that will drive physicians toward the current standards of quality and success.





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*You will access a multimedia library with numerous cervical injury cases, explored from the perspective of disc pathology, weightlifting and vertebral deformities”*

## Module 1. Spinal Sports Injuries

- 1.1. Spine Pathology and Injury Biomechanics in Sports
- 1.2. Cervical Pathology
  - 1.2.1. Anatomy and Biomechanics
  - 1.2.2. Injury Mechanism and Classification
  - 1.2.3. Diagnosis
  - 1.2.4. Treatment Return to Play
- 1.3. Spondylolysis-Spondylolisthesis
  - 1.3.1. Anatomy and Biomechanics
  - 1.3.2. Injury Mechanism and Classification
  - 1.3.3. Diagnosis
  - 1.3.4. Treatment Return to Play
- 1.4. Other Causes of Rachialgia
  - 1.4.1. Facet Pain
  - 1.4.2. Fractures
  - 1.4.3. Sprains
- 1.5. Disk Pathology
  - 1.5.1. Anatomy and Biomechanics
  - 1.5.2. Injury Mechanism and Classification
  - 1.5.3. Diagnosis
  - 1.5.4. Treatment Return to Play
- 1.6. Weightlifting and Bodybuilding
  - 1.6.1. Spine Injuries
- 1.7. Vertebral Deformities and Sport
- 1.8. Treating Vertebral Orthoses in Sport
- 1.9. Spine Interventionism
- 1.10. The Spine in Athletes
  - 1.10.1. Diagnostic and Therapeutic Alternatives to Be Considered





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*You will update your knowledge thanks to detailed videos, self-assessment exercises, simulated cases and complementary readings covering all facets of Spinal Injuries in Sports”*

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. 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 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 Spine Injuries in Sports 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 Spine Injuries in Sports** 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 Spine Injuries in Sports**

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 quality  
online training  
development language  
virtual classroom



## Postgraduate Certificate Spine Injuries in Sports

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

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