

# Postgraduate Certificate

## Lower Limb Injuries in Sports

Endorsed by the NBA





## Postgraduate Certificate Lower Limb Injuries in Sports

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 8h/week
- » Schedule: at your own pace
- » Exams: online

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

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

In the sports world, a large number of injuries can occur in the lower limb, generally caused by subjecting the body to its limit, with high levels of stress, muscle tension, excessive joint overload, or tendon and ligament strain, mostly due to trauma or overload. In this 100% online program, physicians will review the new specific exploration maneuvers, the precise diagnostic methods and the conservative, surgical and interventional treatment options for these injuries, to try to minimize their impact once they have occurred. The professional will be updated on lower limb injuries in sports by specialists with extensive experience in Sports Medicine.





“

*This Postgraduate Certificate will allow you to give you deeper insight into the most important developments in meniscal injuries”*

This Postgraduate Certificate will review and analyze the typology of the most common lower limb injuries derived from sports practice in its different modalities. Likewise, professionals will delve into the main neuropathies due to lower limb entrapment related to sports practice.

Physicians will be presented with an exhaustive review of the most frequent lower limb joint and soft tissue injuries in athletes by analyzing their etiological factors and possible causal mechanisms. The program will take a deep look into the concepts of biomechanics, alignments, dysmetries, footwear used and training surface, athlete physical condition, and the like.

Moreover, as it is a 100% online Postgraduate Certificate, physicians will not be constrained by fixed timetables or the need to commute to another location, but can access the contents at any time of the day, balancing their work or personal life with their academic life. In just six weeks you will obtain your qualification in a comfortable and flexible way.

This **Postgraduate Certificate in Lower Limb 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



*Join a growing community and support yourself with the best. You'll get up to date on sports injuries in a convenient and flexible way"*

“

*Seize the opportunity and take the step to get up to date on the latest developments in hematomas and muscle tears”*

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.

*With this program, you will be able to master new techniques and strategies for ankle joint pathologies.*

*TECH brings to this course the most complete and updated didactic and methodological program on the market. We adapt to you.*



# 02 Objectives

The main objective pursued by the program is to provide a theoretical-practical update, so physicians can perfectly and rigorously master everything they need to know to apply the latest techniques in treating lower limb injuries in sports. In this way, it is guaranteed to continue with the academic excellence that is essential to comply with the professional profile required by different centers.





“

*Take advantage of the best possible pedagogical methodology to access high quality multimedia content, rich in complementary readings and detailed videos on Lower Limb Injuries in Sports”*



## General Objectives

---

- ◆ 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

---

- Know how to perform the most useful physical examination maneuvers
- Explore radiological findings for lower limb pathologies
- Know how to establish injury prognosis
- Know how to adapt sport activity to lower limb injuries
- Know how to adapt exercise for athlete recovery from lower limb injuries



*You will accomplish your professional updating goal in Lower Limb Injuries in Sports sooner than you think”*

03

# Course Management

In order to ensure the highest possible quality in this program, TECH has brought together renowned professionals with the aim of motivating physicians to update their knowledge with a solid foundation in this area of specialization. Therefore, those who take this program will be guaranteed to update at an international level in lower limb sports injuries.





“

*The program is supported by an outstanding faculty with multiple years of experience in sports injury intervention”*

## 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

---

- ♦ 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

## Management



### Dr. Alonso Álvarez, Belén

- ◆ Specialist in Physical Medicine and Rehabilitation at Ruber Juan Bravo Hospital Complex
- ◆ Coordinator of the Functional Unit of Facial Paralysis at the Ramón y Cajal Hospital
- ◆ Coordinator of the School of Breast Cancer Patients at the Ramón y Cajal Hospital
- ◆ Clinical Professor of the subject of Rehabilitation UAH in the Department of Medical Specialties
- ◆ Professor of the subject of the Locomotor System at the European University
- ◆ Accredited by the School of Ultrasound Spanish Society of Rehabilitation and Physical Medicine for the use of ultrasound as a diagnostic and therapeutic means in Rehabilitation
- ◆ Doctor of Medicine, with outstanding Cum Laude, at the Complutense University of Madrid
- ◆ Degree in Medicine and Surgery at the Autonomous University of Madrid
- ◆ Master's Degree in Valuation of Bodily Injury, Universidad Autónoma Madrid
- ◆ Master's Degree in Strategic Management of Scientific Societies from ESADE Business School
- ◆ She has several awards in scientific activities





### **Dr. Palomino Aguado, Blanca**

- ◆ Head of Physical Medicine and Rehabilitation Service, Hospital Ramón y Cajal.
- ◆ Associate Professor UAH of Radiology and Physical Medicine in the Department of Medical Specialties.
- ◆ Degree in Medicine and Surgery from the University of Navarra.
- ◆ Master's Degree in Valuation of Bodily Injury by the Autonomous University of Madrid.
- ◆ Master's Degree in Strategic Management of Scientific Societies, ESADE Business School.
- ◆ Master's Degree in Clinical Management from the Instituto de Salud Carlos III and the Universidad Nacional de Educación a distancia.
- ◆ Doctor of Medicine, Cum Laude, from the Complutense University of Madrid.
- ◆ She has several awards in scientific activities

# 04

## Structure and Content

Understanding the new methods of medical intervention that can be applied to lower limb sports injuries should be the result of taking a carefully designed program that provides the necessary tools to develop a critical, evaluative and up-to-date medical session. This program accomplishes that task through high quality content, comprehensively developed in detailed videos, supplemental readings and more first-rate multimedia material.



“

*The program contains the most modern scientific basis to bring you up to date in knee extensor apparatus and tendinopathies pathology”*

## Module 1. Lower Limb Sports Injuries

- 1.1. Hip Injuries
  - 1.1.1. Anatomy and Biomechanics
  - 1.1.2. Injury Mechanism and Classification
  - 1.1.3. Diagnosis
  - 1.1.4. Treatment *Return to Play*
- 1.2. Knee Extensor Apparatus 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. Knee Tendinopathies
  - 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. Knee Ligament Injuries
  - 1.4.1. Anatomy and Biomechanics
  - 1.4.2. Injury Mechanism and Classification
  - 1.4.3. Diagnosis
  - 1.4.4. Postoperative Treatment and Rehabilitation
  - 1.4.5. Preventing Anterior Cruciate Ligament Tears
- 1.5. Meniscal Injuries
  - 1.5.1. Anatomy and Biomechanics
  - 1.5.2. Injury Mechanism and Classification
  - 1.5.3. Diagnosis
  - 1.5.4. Postoperative Treatment and Rehabilitation
  - 1.5.5. Preventing Meniscal Injuries
  - 1.5.6. Other Knee Ligament Injuries
  - 1.5.7. Medial Collateral Ligament and Posteromedial Corner
  - 1.5.8. Posterior Cruciate Ligament
  - 1.5.9. External Collateral Ligament and Posteromedial Corner
  - 1.5.10. Multiligament Injuries and Knee Dislocations

- 1.6. Ligament Injuries and Ankle Instability
  - 1.6.1. Anatomy and Biomechanics
  - 1.6.2. Injury Mechanism and Classification
  - 1.6.3. Diagnosis
  - 1.6.4. Treatment *Return to Play*
- 1.7. Ankle Joint Pathology
  - 1.7.1. Anatomy and Biomechanics
  - 1.7.2. Injury Mechanism and Classification
  - 1.7.3. Diagnosis
  - 1.7.4. Treatment *Return to Play*
- 1.8. Foot Injuries
  - 1.8.1. Anatomy and Biomechanics
  - 1.8.2. Injury Mechanism and Classification
  - 1.8.3. Diagnosis
  - 1.8.4. Treatment *Return to Play*
- 1.9. Bruises and Muscle Tears
- 1.10. Lower Limb Neuropathies



*You will have access to high-quality material that will serve as a reference guide even after completing the Postgraduate Certificate”*



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"*

## 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.



“

*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 Lower Limb Injuries in Sports guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



“

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

This **Postgraduate Certificate in Lower Limb Injuries in Sports** is the most comprehensive and up-to-date 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 job markets, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Lower Limb Injuries in Sports**

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 quality  
development languages  
virtual classroom



## Postgraduate Certificate Lower Limb Injuries in Sports

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 8h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate Lower Limb Injuries in Sports

Endorsed by the NBA

