**Postgraduate Diploma** Upper and Lower Limb Injuries in Sports

Endorsed by the NBA



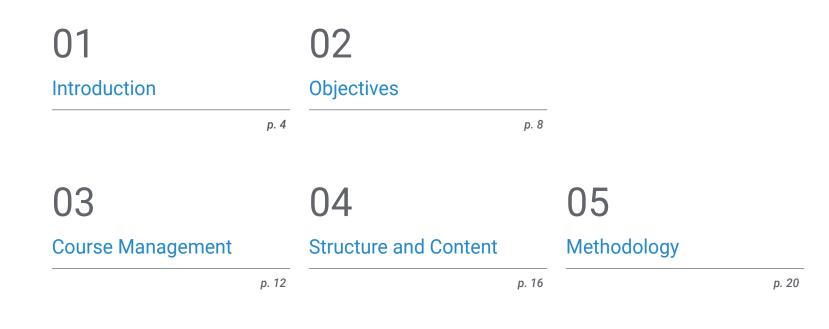


# **Postgraduate Diploma** Upper and Lower Limb Sports Injuries

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

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-upper-lower-limb-sports-injuries

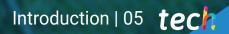
# Index



06 Certificate

# 01 Introduction

Upper and lower limb pathology in sports is very frequent and can occurs in a variety of different sport modalities. It is therefore essential to be updated on the most common limb injuries, broken down by the different pathologies that can be found, including entrapment neuropathies. In this 100% online program with flexible scheduling, physicians will be presented with an exhaustive review of the most common joint and soft tissue injuries in the upper limb, 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.



A course designed to provide you with the new ways of working with sports injuries through a stimulating and practical indepth training experience"

## tech 06 | Introduction

Every day, high levels of stress, muscle tension, excessive joint overload, or tendon and ligament strain, mostly caused by trauma or overload, produce a large number of injuries in the upper and lower limbs, generally derived from subjecting the body to its limit. In this Postgraduate Diploma, physicians will review and analyze the typology of the most common lower limb injuries derived from sports practice in its different modalities.

The program will delve deeper into specific exploration maneuvers, accurate diagnostic methods and options for conservative, surgical and interventional treatment to try to minimize their impact once these injuries have occurred. Likewise, the main neuropathies due to lower limb entrapment related to sports practice will be studied.

In the course of six months, physicians will take a deeper look into the field of application of Sports Medicine, understanding the competitive advantages it brings to treat sports injuries of the upper and lower limb, which will position them at the forefront of the medical field. Furthermore, graduates have the best 100% online study methodology, which eliminates the need to attend classes in person or be constrained by a predetermined schedule. This **Postgraduate Diploma in Upper and 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 and Sports Injuries
- 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



TECH puts at your disposal this very complete and up-to-date Postgraduate Diploma that will allow you to study without compatibility problems in your daily life"

## Introduction | 07 tech

You have at your fingertips the best opportunity to get up to speed on the fastest and most effective treatments to address wrist injuries: fractures, sprains and dislocations" Seize the opportunity and make your competences allow you to practice in the new areas of upper and lower limb sports injuries.

Your patients will be satisfied thanks to the in-depth knowledge that this Postgraduate Diploma will extend you.

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**

The objective of this Postgraduate Diploma is to support and encourage physicians in a process of professional updating that will allow them to reach the highest level of performance. This, with the most interesting and innovative knowledge available today, in a program intensively focused on practice. All this will bring you up to date on the most effective diagnostic methods and treatment options.



GG Enter field

Enter the world of new technologies in the field of sports and learn how to handle the high-demand nature of professional and elite performance sports"

# tech 10 | Objectives



## **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



# Objectives | 11 tech





## Specific Objectives

### Module 1. Upper Limb Sports Injuries

- Adapt sports activity to upper limb injuries
- Adapt exercise for athlete recovery from upper limb injuries

### Module 2. Lower Limb Sports Injuries

- 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

### Module 3. Therapeutic Management of Sports Injuries

- Know the indications and contraindications of the different therapeutic options studied
- Explore the expected effects of each one of them as well as possible complications
- Enter the world of new technologies in the field of sports
- \* Know how to handle the high demands of professional or high-performance sports

# 03 Course Management

Professionals in the field of Sports Medicine at TECH make up a complete multidisciplinary cast to provide physicians with a unique opportunity to update their skills through this Postgraduate Diploma. TECH has also brought together the best professionals in the field, who will invest their theoretical and practical knowledge to update our students. All this, with the most current and effective teaching methods in the online academic market.

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An unparalleled opportunity to update your knowledge by observing and analyzing real cases from the best specialists in sports injuries"

## tech 14 | Course Management

## **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

- · 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

The contents of this Postgraduate Diploma have been structured and developed with a clear purpose: to provide physicians with deeper insight into each and every one of the skills needed to be up to date in upper and lower limb sports injuries. It is, therefore, a very complete program that addresses issues ranging from clavicle fracture and acromioclavicular dislocation to knee tendinopathies, for physicians to continue driving their medical work toward the highest standards of quality and success.

A compendium of knowledge created to give you as a physician the opportunity to update on injury mechanisms and their classification"

### Module 1. Upper Limb Sports Injuries

- 1.1. Rotator Cuff Pathology
  - 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. Clavicle Fracture and Acromio-Clavicular Dislocation
  - 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. Shoulder Instability
  - 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. Proximal Humerus Limb Fracture
  - 1.4.1. Anatomy and Biomechanics
  - 1.4.2. Injury Mechanism and Classification
  - 1.4.3. Diagnosis
  - 1.4.4. Treatment Return to Play
- 1.5. Bicep 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. Insertional Elbow Pathology: Epicondylitis and Epitrochleitis
  - 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. Traumatic Elbow 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. Wrist Injuries: Fractures, Sprains and Dislocations
  - 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. Hand Injuries
  - 1.9.1. Anatomy and Biomechanics
  - 1.9.2. Injury Mechanism and Classification
  - 1.9.3. Diagnosis
  - 1.9.4. Treatment Return to Play
- 1.10. Upper Limb Neuropathies

### Module 2. Lower Limb Sports Injuries

- 2.1. Hip Injuries
  - 2.1.1. Anatomy and Biomechanics
  - 2.1.2. Injury Mechanism and Classification
  - 2.1.3. Diagnosis
  - 2.1.4. Treatment Return to Play
- 2.2. Knee Extensor Apparatus Pathology
  - 2.2.1. Anatomy and Biomechanics
  - 2.2.2. Injury Mechanism and Classification
  - 2.2.3. Diagnosis
  - 2.2.4. Treatment Return to Play

## Structure and Content | 19 tech

#### 2.3. Knee Tendinopathies

- 2.3.1. Anatomy and Biomechanics
- 2.3.2. Injury Mechanism and Classification
- 2.3.3. Diagnosis
- 2.3.4. Treatment Return to Play
- 2.4. Knee Ligament Injuries
  - 2.4.1. Anatomy and Biomechanics
  - 2.4.2. Injury Mechanism and Classification
  - 2.4.3. Diagnosis
  - 2.4.4. Postoperative Treatment and Rehabilitation
  - 2.4.5. Preventing Anterior Cruciate Ligament Tears
- 2.5. Meniscal Injuries
  - 2.5.1. Anatomy and Biomechanics
  - 2.5.2. Injury Mechanism and Classification
  - 2.5.3. Diagnosis
  - 2.5.4. Postoperative Treatment and Rehabilitation
  - 2.5.5. Preventing Meniscal Injuries
  - 2.5.6. Other Knee Ligament Injuries
  - 2.5.7. Medial Collateral Ligament and Posteromedial Corner
  - 2.5.8. Posterior Cruciate Ligament
  - 2.5.9. External Collateral Ligament and Posteromedial Corner
  - 2.5.10. Multiligament Injuries and Knee Dislocations
- 2.6. Ligament Injuries and Ankle Instability
  - 2.6.1. Anatomy and Biomechanics
  - 2.6.2. Injury Mechanism and Classification
  - 2.6.3. Diagnosis
  - 2.6.4. Treatment Return to Play
- 2.7. Ankle Joint Pathology
  - 2.7.1. Anatomy and Biomechanics
  - 2.7.2. Injury Mechanism and Classification
  - 2.7.3. Diagnosis
  - 2.7.4. Treatment Return to Play

- 2.8. Foot Injuries
  - 2.8.1. Anatomy and Biomechanics
  - 2.8.2. Injury Mechanism and Classification
  - 2.8.3. Diagnosis
  - 2.8.4. Treatment Return to Play
- 2.9. Bruises and Muscle Tears
- 2.10. Lower Limb Neuropathies

### Module 3. Therapeutic Management of Sports Injuries

- 3.1. Therapeutic Exercise
- 3.2. Physiotherapy
- 3.3. Bandages
- 3.4. Manual Therapy
- 3.5. Infiltrations
- 3.6. Nerve Blocks
- 3.7. Radiofrequency
- 3.8. Regenerative Medicine I
  - 3.8.1. Standards in Clinical Use
  - 3.8.2. Clinical and Administrative Considerations
- 3.9. Regenerative Medicine II
  - 3.9.1. PRP Therapies
  - 3.9.2. Stem Cell Therapies
  - 3.9.3. Amniotic and Other Products
  - 3.9.4. Rehabilitation after Regenerative Therapies
- 3.10. New Technologies

# 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"

## tech 22 | Methodology

## 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:

 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.
- 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.



## tech 24 | Methodology

## **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.



## Methodology | 25 tech

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.



## tech 26 | Methodology

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.

20%

15%

3%

15%

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.

## Methodology | 27 tech



### **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.

20%

7%

3%

17%



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





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

## tech 30 | Certificate

This **Postgraduate Diploma in Upper and Lower Limb Injuries in Sports** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional from career evaluation committees.

Title: Postgraduate Diploma in Upper and Lower Limb Injuries in Sports Official N° of hours: 450 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.

technological university Postgraduate Diploma Upper and Lower Limb Sports Injuries » Modality: online » Duration: 6 months » Certificate: TECH Technological University » Dedication: 8h/week » Schedule: at your own pace » Exams: online

**Postgraduate Diploma** Upper and Lower Limb Injuries in Sports

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