

Master's Degree Sports Medicine

Endorsed by the NBA





Master's Degree Sports Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/master-degree/master-sports-medicine

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 14

04

Course Management

p. 18

05

Structure and Content

p. 24

06

Methodology

p. 32

07

Certificate

p. 40

01

Introduction

Sports Medicine currently offers an unbeatable framework for specialists. The growing interest of the general population in doing sport, as well as the increasingly specific needs of elite athletes, mean that advances, approaches and protocols for action are constantly being updated. This program responds to this need to be up to date with a broad and diverse vision, bringing together an expert team of cardiologists, radiologists, traumatologists and other specialists who have developed first class didactic material with a profoundly practical approach. The entire program, moreover, is offered in a 100% online format, eliminating both face-to-face classes and fixed schedules to prioritize the flexibility of the specialists who take it.



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Acquire the latest techniques specific to spinal sports injuries, as well as the skills and attitudes for their practical application in a degree created for excellence”

This program compiles several topics that are not usually grouped together in other master's degrees on sport and that offer guidance from a global and updated approach, both athlete health assessments and the diagnosis and comprehensive treatment of sports injuries. The objective of prevention and early reincorporation to sporting activity is also of special relevance, thanks to the latest advances that are taking place, especially at the therapeutic level. Another objective will be to consider the most current lines of research.

Moreover, an entire module is devoted to specific sports that, at present, are part of everyday life, such as soccer, cycling, swimming, tennis or basketball. It also addresses sport in specific situations such as cancer, diabetes, frailty or COVID-19, as well as the particularities women or children's sports. All this without omitting adapted sports, which include very specific aspects for people with disabilities and that are generally not covered in other programs.

The most important value of this Master's Degree is its up-to-date vision of Sports Medicine. Therefore, we have selected a new and ambitious syllabus that encompasses the most relevant aspects of current sports medicine from a broad and diverse perspective. TECH has a panel of experts from different medical specialties (rehabilitation physicians, sports physicians, traumatologists, cardiologists, radiologists) and professionals in the field of physiotherapy, nutrition and psychology, who give this program an interdisciplinary character.

Furthermore, being an online degree, doctors are not conditioned by fixed schedules or the need to move to another physical location. They will be able to access the contents at any time of the day, thereby balancing their work and personal life with their academic life and ensuring a comprehensive update.

This **Master's Degree in Sports Medicine** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ Practical cases presented by experts in Sports medicine
- ♦ 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 assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection.



Learn about the latest advances in adapted sports to be able to continue carrying out quality practice"

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This degree is the best investment you can make in selecting a refresher program to update your knowledge of upper and lower limb sports injuries”

The program's teaching staff includes professionals from 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 immersion training programmed to train in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

TECH offers you a 100% online study opportunity, as comprehensive as possible and continuously linked to current events.

Deepen your knowledge and catch up on the latest studies in doping and nutrition in sport.



02 Objectives

The main program objective is to develop theoretical and practical learning, so that physicians can master Sports Medicine in the most real, rigorous and updated way possible. Consequently, professionals will perform comprehensive patient management, make accurate diagnosis and implement the most appropriate therapy, always using the latest techniques available on the market, and thus positioning themselves at the forefront of the field.



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This Master's Degree will allow you to update your knowledge in Sports Medicine with the use of the latest technology, to contribute quality and confidence to decision making”



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

Module 1. Sports Injuries

- ♦ Know how to differentiate types of sports injuries, a key aspect for an accurate diagnosis and therapeutic approach
- ♦ Determine the causes of sports injuries and their possible production mechanisms
- ♦ Manage the different phases in sports injuries
- ♦ Learn what a sports injury prevention program consists of
- ♦ Know the physiology of the different systems involved in physical exercise and their relevance in sports injuries
- ♦ Gain a deep understanding of the lactate metabolism and the new approaches to interpreting its functions

Module 2. Athlete Assessment

- ♦ Know the clinical and functional tests to be performed on athletes
- ♦ Explore the mechanisms of strength, speed, power and physical condition production in athletes and their performance
- ♦ Know the main imaging tests that can be performed on athletes
- ♦ Explore the main specific functional tests to rule out pathologies in athletes and to adapt the types of training

Module 3. Injuries and Sport

- ♦ Know the epidemiological data of different injuries according to sport and their relevance in daily practice
- ♦ Perform correct explorations for musculoskeletal pathologies in the different sports covered in the topics
- ♦ Know the most prevalent and most severe injuries and establish recovery times
- ♦ Learn how to request the correct imaging tests for each type of injury
- ♦ Explore how to identify when to resume sport activity
- ♦ Delve into the basics of optimal physical training
- ♦ Update on the effects of hormones on athletes' return to sporting activity
- ♦ Learn how to carry out nutritional interventions on athletes

Module 4. Upper Limb Sports Injuries

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

Module 5. 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 6. Spinal Sports Injuries

- ♦ 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 between deformity and 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

Module 7. Sport in Specific Situations

- ♦ Know the indications and contraindications of exercise in these specific populations
- ♦ Explore the medical treatments commonly used in specific pathologies
- ♦ Know when to refer athletes to a medical specialist
- ♦ Explore specific training programs

Module 8. 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



Module 9. Doping and Nutrition in Sport

- ♦ Apply the knowledge acquired in multiple work areas such as: medical assistance, anti-doping institutions, clubs, associations, sports federations, sports medicine centers, lawyers who work with athletes and pharmacists who work with the public

Module 10. Adapted Sports and Disability

- ♦ Know the indications and contraindications of exercise in these athletes
- ♦ Know the specific needs for sports performance in athletes with disabilities
- ♦ Deepen the knowledge of sports performance in people with disabilities

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Take the step as a physician to get up to speed on the latest developments in the therapeutic management of sports injuries”

03 Skills

After passing the program assessments, physicians will have acquired the updated competencies necessary to continue offering quality and updated practice based on the most innovative didactic methodology. This is due to the fact that throughout this Master's Degree you will face multiple simulated clinical cases based on real patients in which you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method, so professionals go deeper, faster and in a more sustainable way over time.



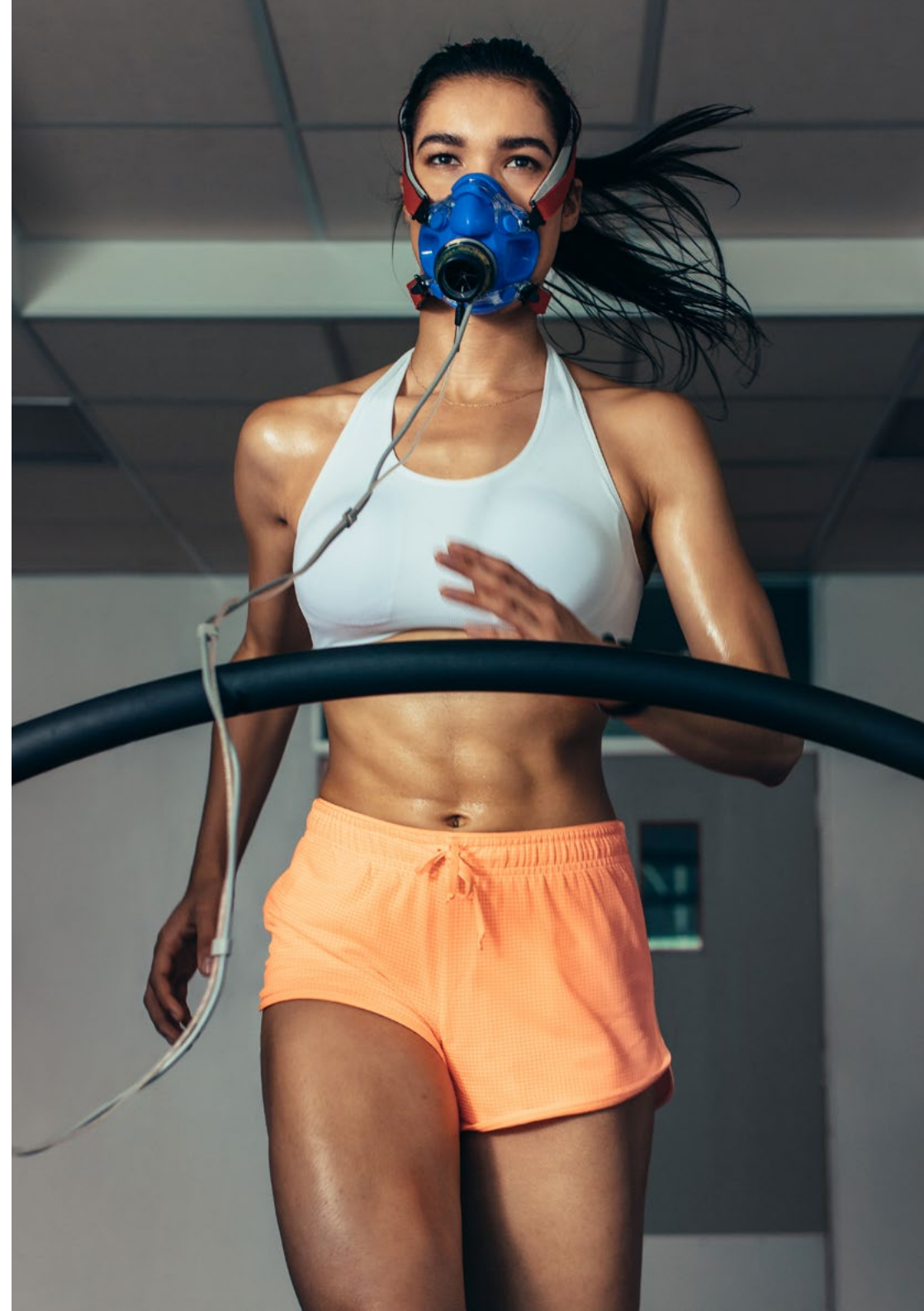
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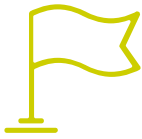
You will be able to bring together novel study resources for up-to-date knowledge of the therapeutics for various injuries and the recovery process for each injury”



General Skills

- Know the differences between physical activity, exercise and sport
- Learn the most relevant general aspects of sports injuries
- Consider and know the physiological aspects related to sports injuries
- Know how to assess the physical condition of an athlete
- Know the clinical and functional tests to be performed on athletes
- Know the main imaging tests that can be performed on athletes
- Explore the main specific functional tests to rule out pathologies in athletes and to adapt the types of training





Specific Skills

- ♦ Explore the mechanisms of strength, speed, power and physical condition production in athletes and their performance
 - ♦ Provide the necessary tools to understand the epidemiology, biomechanics and pathophysiology of the most prevalent injuries in different sports at both upper and lower limb levels, as well as spine injuries, based on the most relevant studies, including the latest publications
 - ♦ Gather study resources for an understanding of the therapeutics for the different injuries and the recovery process for these injuries
 - ♦ Explore the key points in rehabilitation processes to be able to carry out correct daily clinical practice
 - ♦ Know how to make a diagnosis and choose the appropriate treatment for the most frequent spine pathologies in athletes: spondylolysis, discogenic pain, traumatic injuries (fractures, dislocations, sprains, etc.)
 - ♦ Delve into the main consequences of the most potentially injurious sports at the spinal level, and what training modifications or specific exercise guidance can prevent or minimize such pathologies Among these, we will talk specifically about weightlifting and bodybuilding
 - ♦ Identify why your athlete's spine hurts, what are the causes or mechanisms that have generated such pain and the diagnostic methods you can use to reach conclusions
 - ♦ Know which treatments, within the therapeutic arsenal available, have proven benefits for athletes and when to use them
- ♦ Present the specific elements of sport for people with disabilities, such as its different modalities, its organizational elements, sport classifications, the most common injuries, the elements associated with *Doping*, current lines of research and the personal experience of an elite athlete
 - ♦ Advise athletes whatever their sporting discipline, both in the field of competition and at the amateur level



You will have unlimited access from anywhere at any time thanks to the most powerful digital platform and the most developed interactive teaching systems available today"

04

Course Management

The teaching staff in charge of this Master's Degree has extensive and recognized experience in specific sports medicine techniques. In the pursuit of excellence, the professors provide doctors with their experience to create learning situations that will bring them up to date in the field. Therefore, they are a great tool for professionals who wish to be up to date in such a highly demanded field.



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Learn the latest advances in procedures in the field of sports injuries from leading professionals”

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

Professors

Dr. Aguirre Sánchez, Irene

- ♦ Specialist in Physical Medicine and Rehabilitation at Nostra Senyora de Meritxell Hospital, Andorra
- ♦ Specialist in Physical Medicine and Rehabilitation at García Orcoyen Hospital, Andorra
- ♦ Degree in Medicine from the University of Navarra
- ♦ Specialist in Physical and Rehabilitation Medicine at the Hospital Complex of Navarra
- ♦ Postgraduate Diploma in Physical Exercise Prescription at UPNA
- ♦ Postgraduate Diploma in Musculoskeletal Ultrasound from Francisco de Vitoria University

Dr. Fernández López, Juan Marcelo

- ♦ Manager and Clinical and Sports Nutritionist at Nutrir
- ♦ Co-founder and Director of the Spanish Society for the Study-Advancement of Sports Nutrition and Dietetics
- ♦ Specialist in Clinical-Sports Nutrition, treating amateur, semi-professional and professional athletes
- ♦ Associate Professor at Isabel I University
- ♦ Bachelor's Degree in Nutrition from the University of Córdoba
- ♦ Master's Degree and PhD in Nutrition and Metabolism from the University of Cordoba





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*A unique, key and decisive
training experience to boost
your professional development”*

05

Structure and Content

This Master's Degree is a complete review of the newest and most effective specific techniques in Sports Medicine. With a multidisciplinary vision and a complete update that includes the advances in this field of action, it will allow doctors to deepen in everything necessary to intervene as an expert in sports injuries. This degree contains the most complete and up-to-date program, designed by a team of professionals from the best universities in Spain.





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You have at your fingertips a comprehensive teaching program, structured in very well-developed didactic units, aimed at a quick and efficient update, and compatible with your personal and professional life”

Module 1. Sports Injuries

- 1.1. Physical Activity
 - 1.1.1. Exercise
 - 1.1.2. Sports
- 1.2. Sports Injuries
 - 1.2.1. Relevance
 - 1.2.2. Etiology
 - 1.2.3. Sport Injuries Classification
- 1.3. Prevention and Sports Injury Phases
- 1.4. Sports Injury Mechanisms
- 1.5. Physiological Memory in the Musculoskeletal System
- 1.6. Physiological Memory in the Vascular System
- 1.7. Physiological Memory in the Cardiorespiratory System
- 1.8. Physiological Memory in the Immune System
- 1.9. Lactate Metabolism
- 1.10. Physical Condition

Module 2. Athlete Assessment

- 2.1. Anthropometric Measurements
 - 2.1.1. Anthropometry and Kinanthropometry
 - 2.1.2. The Anthropometric Method and Implementation
 - 2.1.3. Anthropometric Measurements Proportionality Topic: Body Composition
- 2.2. Body Composition
 - 2.2.1. Body Composition Assessment Methods
 - 2.2.2. Body Composition Fractionation
 - 2.2.3. Body Composition, Nutrition and Physical Activity
 - 2.2.4. Somatotype
- 2.3. Clinical Assessment
- 2.4. Use of Electrocardiogram and Echocardiogram in Cardiological Assessment in Healthy Athletes
- 2.5. Usefulness of Stress Tests in Cardiological Assessments of Healthy Athletes
- 2.6. Usefulness of Stress Tests with Oxygen Consumption in Athletes

- 2.7. Ultrasound in Sports Injuries
- 2.8. MRI in Sports Injuries
- 2.9. CT in Sports Injuries
- 2.10. Useful Tools in Sports Psychology

Module 3. Injuries and Sport

- 3.1. Swimming
 - 3.1.1. Objectives
 - 3.1.2. Epidemiology and Etiology
 - 3.1.3. Most Common Injuries
 - 3.1.4. Prevention and Rehabilitation
 - 3.1.5. Conclusions
- 3.2. Cycling
 - 3.2.1. Objectives
 - 3.2.2. Epidemiology and Etiology
 - 3.2.3. Most Common Injuries
 - 3.2.4. Prevention and Rehabilitation
 - 3.2.5. Conclusions
- 3.3. Soccer
 - 3.3.1. Objectives
 - 3.3.2. Epidemiology and Etiology
 - 3.3.3. Most Common Injuries
 - 3.3.4. Prevention and Rehabilitation
 - 3.3.5. Conclusions
- 3.4. Track and Field Athletics
 - 3.4.1. Objectives
 - 3.4.2. Epidemiology and Etiology
 - 3.4.3. Most Common Injuries
 - 3.4.4. Prevention and Rehabilitation
 - 3.4.5. Conclusions

- 3.5. Racket Sports
 - 3.5.1. Objectives
 - 3.5.2. Epidemiology and Etiology
 - 3.5.3. Most Common Injuries
 - 3.5.4. Prevention and Rehabilitation
 - 3.5.5. Conclusions
- 3.6. Skiing
 - 3.6.1. Objectives
 - 3.6.2. Epidemiology and Etiology
 - 3.6.3. Most Common Injuries
 - 3.6.4. Prevention and Rehabilitation
 - 3.6.5. Conclusions
- 3.7. Dance
 - 3.7.1. Objectives
 - 3.7.2. Epidemiology and Etiology
 - 3.7.3. Most Common Injuries
 - 3.7.4. Prevention and Rehabilitation
 - 3.7.5. Conclusions
- 3.8. Basketball
 - 3.8.1. Objectives
 - 3.8.2. Epidemiology and Etiology
 - 3.8.3. Most Common Injuries
 - 3.8.4. Prevention and Rehabilitation
 - 3.8.5. Conclusions
- 3.9. Other Sports: Hockey, Rugby and Triathlons
 - 3.9.1. Objectives
 - 3.9.2. Epidemiology and Etiology
 - 3.9.3. Most Common Injuries
 - 3.9.4. Prevention and Rehabilitation
 - 3.9.5. Conclusions
- 3.10. Return to Play

Module 4. Upper Limb Sports Injuries

- 4.1. Rotator Cuff Pathology
 - 4.1.1. Anatomy and Biomechanics
 - 4.1.2. Injury Mechanism and Classification
 - 4.1.3. Diagnosis
 - 4.1.4. Treatment. Return to Play
- 4.2. Clavicle Fracture and Acromioclavicular Dislocation
 - 4.2.1. Anatomy and Biomechanics
 - 4.2.2. Injury Mechanism and Classification
 - 4.2.3. Diagnosis
 - 4.2.4. Treatment. Return to Play
- 4.3. Shoulder Instability
 - 4.3.1. Anatomy and Biomechanics
 - 4.3.2. Injury Mechanism and Classification
 - 4.3.3. Diagnosis
 - 4.3.4. Treatment. Return to Play
- 4.4. Proximal Humerus Limb Fracture
 - 4.4.1. Anatomy and Biomechanics
 - 4.4.2. Injury Mechanism and Classification
 - 4.4.3. Diagnosis
 - 4.4.4. Treatment. Return to Play
- 4.5. Bicep Pathology
 - 4.5.1. Anatomy and Biomechanics
 - 4.5.2. Injury Mechanism and Classification
 - 4.5.3. Diagnosis
 - 4.5.4. Treatment. Return to Play
- 4.6. Insertional Elbow Pathology: Epicondylitis
 - 4.6.1. Anatomy and Biomechanics
 - 4.6.2. Injury Mechanism and Classification
 - 4.6.3. Diagnosis
 - 4.6.4. Treatment. Return to Play

- 4.7. Traumatic Elbow Pathology
 - 4.7.1. Anatomy and Biomechanics
 - 4.7.2. Injury Mechanism and Classification
 - 4.7.3. Diagnosis
 - 4.7.4. Treatment. Return to Play
- 4.8. Wrist Injuries: Fractures, Sprains and Dislocations
 - 4.8.1. Anatomy and Biomechanics
 - 4.8.2. Injury Mechanism and Classification
 - 4.8.3. Diagnosis
 - 4.8.4. Treatment. Return to Play
- 4.9. Hand Injuries
 - 4.9.1. Anatomy and Biomechanics
 - 4.9.2. Injury Mechanism and Classification
 - 4.9.3. Diagnosis
 - 4.9.4. Treatment. Return to Play
- 4.10. Upper Limb Neuropathies

Module 5. Lower Limb Sports Injuries

- 5.1. Hip Injuries
 - 5.1.1. Anatomy and Biomechanics
 - 5.1.2. Injury Mechanism and Classification
 - 5.1.3. Diagnosis
 - 5.1.4. Treatment. Return to Play
- 5.2. Knee Extensor Apparatus Pathology
 - 5.2.1. Anatomy and Biomechanics
 - 5.2.2. Injury Mechanism and Classification
 - 5.2.3. Diagnosis
 - 5.2.4. Treatment. Return to Play
- 5.3. Knee Tendinopathies
 - 5.3.1. Anatomy and Biomechanics
 - 5.3.2. Injury Mechanism and Classification
 - 5.3.3. Diagnosis
 - 5.3.4. Treatment. Return to Play





- 5.4. Knee Ligament Injuries
 - 5.4.1. Anatomy and Biomechanics
 - 5.4.2. Injury Mechanism and Classification
 - 5.4.3. Diagnosis
 - 5.4.4. Postoperative Treatment and Rehabilitation
 - 5.4.5. Preventing Anterior Cruciate Ligament Tears
- 5.5. Meniscal Injuries
 - 5.5.1. Anatomy and Biomechanics
 - 5.5.2. Injury Mechanism and Classification
 - 5.5.3. Diagnosis
 - 5.5.4. Postoperative Treatment and Rehabilitation
 - 5.5.5. Preventing Meniscal Injuries
 - 5.5.6. Other Knee Ligament Injuries
 - 5.5.7. Medial Collateral Ligament and Posteromedial Corner
 - 5.5.8. Posterior Cruciate Ligament
 - 5.5.9. External Collateral Ligament and Posteromedial Corner
 - 5.5.10. Multi-Ligament Injuries and Knee Dislocations
- 5.6. Ligament Injuries and Ankle Instability
 - 5.6.1. Anatomy and Biomechanics
 - 5.6.2. Injury Mechanism and Classification
 - 5.6.3. Diagnosis
 - 5.6.4. Treatment. Return to Play
- 5.7. Ankle Joint Pathology
 - 5.7.1. Anatomy and Biomechanics
 - 5.7.2. Injury Mechanism and Classification
 - 5.7.3. Diagnosis
 - 5.7.4. Treatment. Return to Play
- 5.8. Foot Injuries
 - 5.8.1. Anatomy and Biomechanics
 - 5.8.2. Injury Mechanism and Classification
 - 5.8.3. Diagnosis
 - 5.8.4. Treatment. Return to Play
- 5.9. Bruises and Muscle Tears
- 5.10. Lower Limb Neuropathies

Module 6. Spinal Sports Injuries

- 6.1. Spine Pathology and Injury Biomechanics in Sports
- 6.2. Cervical Pathology
 - 6.2.1. Anatomy and Biomechanics
 - 6.2.2. Injury Mechanism and Classification
 - 6.2.3. Diagnosis
 - 6.2.4. Treatment. Return to Play
- 6.3. Spondylolysis-Spondylolisthesis
 - 6.3.1. Anatomy and Biomechanics
 - 6.3.2. Injury Mechanism and Classification
 - 6.3.3. Diagnosis
 - 6.3.4. Treatment. Return to Play
- 6.4. Other Causes of Rachialgia
 - 6.4.1. Facet Pain
 - 6.4.2. Fractures
 - 6.4.3. Sprains
- 6.5. Disk Pathology
 - 6.5.1. Anatomy and Biomechanics
 - 6.5.2. Injury Mechanism and Classification
 - 6.5.3. Diagnosis
 - 6.5.4. Treatment. Return to Play
- 6.6. Weightlifting and Bodybuilding
 - 6.6.1. Spine Injuries
- 6.7. Vertebral Deformities and Sport
- 6.8. Treating Vertebral Orthoses in Sport
- 6.9. Spine Interventionism
- 6.10. The Spine in Athletes
 - 6.10.1. Diagnostic and Therapeutic Alternatives to Be Considered

Module 7. Sport in Specific Situations

- 7.1. Women and Sport
 - 7.1.1. Current Situation of Women in Sport
 - 7.1.2. Pregnancy and Sport
 - 7.1.3. Puerperium, Breastfeeding and Sport
 - 7.1.4. Conclusions
- 7.2. Cancer
 - 7.2.1. Sport Benefits in Cancer
 - 7.2.2. Physical Activity in Palliative Care
 - 7.2.3. Specific Intervention
 - 7.2.4. Conclusions
- 7.3. Respiratory Pathology
- 7.4. Osteoporosis
- 7.5. Fragility for
- 7.6. Rheumatic Diseases
- 7.7. Diabetes
 - 7.7.1. Effects of Different Types of Exercise on Glycemic Control
 - 7.7.2. Medical Evaluation Prior to Exercise
 - 7.7.3. Diet Modifications
 - 7.7.4. Adjusting Drugs
 - 7.7.5. Training Guidelines
- 7.8. COVID-19
- 7.9. Cardiovascular Disease in Sport
- 7.10. Child Population

Module 8. Therapeutic Management of Sports Injuries

- 8.1. Therapeutic Exercise
- 8.2. Physiotherapy
- 8.3. Bandages
- 8.4. Manual Therapy
- 8.5. Infiltrations
- 8.6. Nerve Blocks
- 8.7. Radiofrequency

- 8.8. Regenerative Medicine I
 - 8.8.1. Standards in Clinical Use
 - 8.8.2. Clinical and Administrative Considerations
- 8.9. Regenerative Medicine II
 - 8.9.1. PRP Therapies
 - 8.9.2. Stem Cell Therapies
 - 8.9.3. Amniotic and Other Products
 - 8.9.4. Rehabilitation after Regenerative Therapies
- 8.10. New Technologies

Module 9. Doping and Nutrition in Sport

- 9.1. Basic Nutrition
 - 9.1.1. Energy Systems
 - 9.1.2. Basic Nutrient Absorption and Utilization Processes
 - 9.1.3. Regulating Body Temperature during Exercise
 - 9.1.4. Nutritional Intervention
 - 9.1.5. Communication in Nutritional Monitoring
- 9.2. Methods to Determine Dietary Intake
 - 9.2.1. Dietetic Assessments for Athletes
 - 9.2.2. Dietary Surveys
 - 9.2.3. Determining Energy Expenditure and Energy Needs
 - 9.2.4. Dietary Intake and Sufficiency Indicators
- 9.3. Sport Dietetics
 - 9.3.1. Nutrient Recommendation
 - 9.3.2. Athlete Monitoring Tests and Assessments
 - 9.3.3. Fluid and Electrolyte Replenishment
- 9.4. Sports Nutrition and Special Nutritional Needs
 - 9.4.1. Nutrition in Popular Races
 - 9.4.2. Nutrition in Trailrunning
 - 9.4.3. Nutrition in Team Sports
 - 9.4.4. Nutrition in Combat-Based Sports

- 9.5. Nutritional Supplements in Sport
 - 9.5.1. Classification of Nutritional Ergogenic Aids
 - 9.5.2. Main Nutritional Ergogenic Aids
 - 9.5.3. Supplement Nutrition Labeling
 - 9.5.4. Decisions in Prescribing Nutritional Dietary Supplements
- 9.6. Doping
- 9.7. Doping Substances and Laboratory Diagnostics
- 9.8. Genetic Doping and Unintentional Doping
- 9.9. Rules and Regulations
- 9.10. Sport and Doping
 - 9.10.1. Doping Prevention

Module 10. Adapted Sports and Disability

- 10.1. Disabled People
- 10.2. Disabled People and Doing Sport
 - 10.2.1. Specific Materials
- 10.3. Including People with Disabilities in Sports
 - 10.3.1. Good Practice Experience
- 10.4. Grassroots and Competitive Sports for People with Disabilities
- 10.5. The National and International Ecosystem of Sports for People with Disabilities
- 10.6. Classifications in Sports for People with Disabilities
- 10.7. Sports for People with Disabilities and Doping
- 10.8. Injuries in Disabled Athletes
- 10.9. Research in Sport for People with Disabilities
- 10.10. Paralympic Athlete's Personal Experience

06 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.



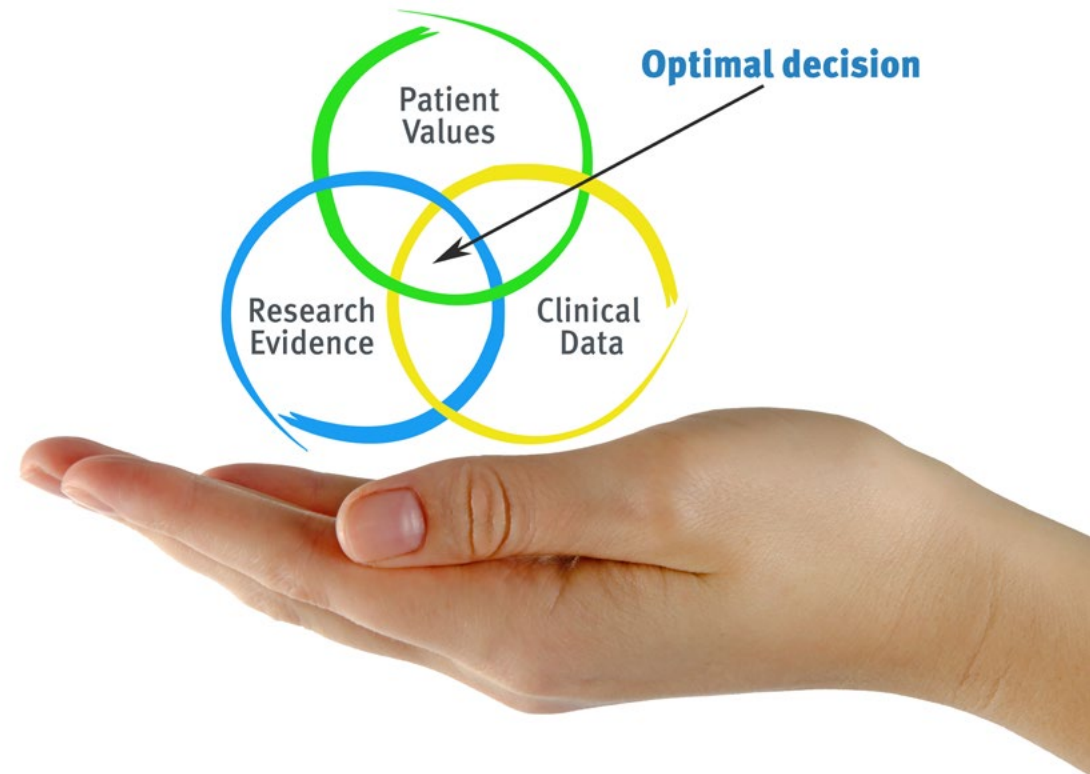
“

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.

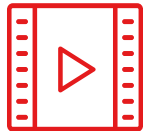
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

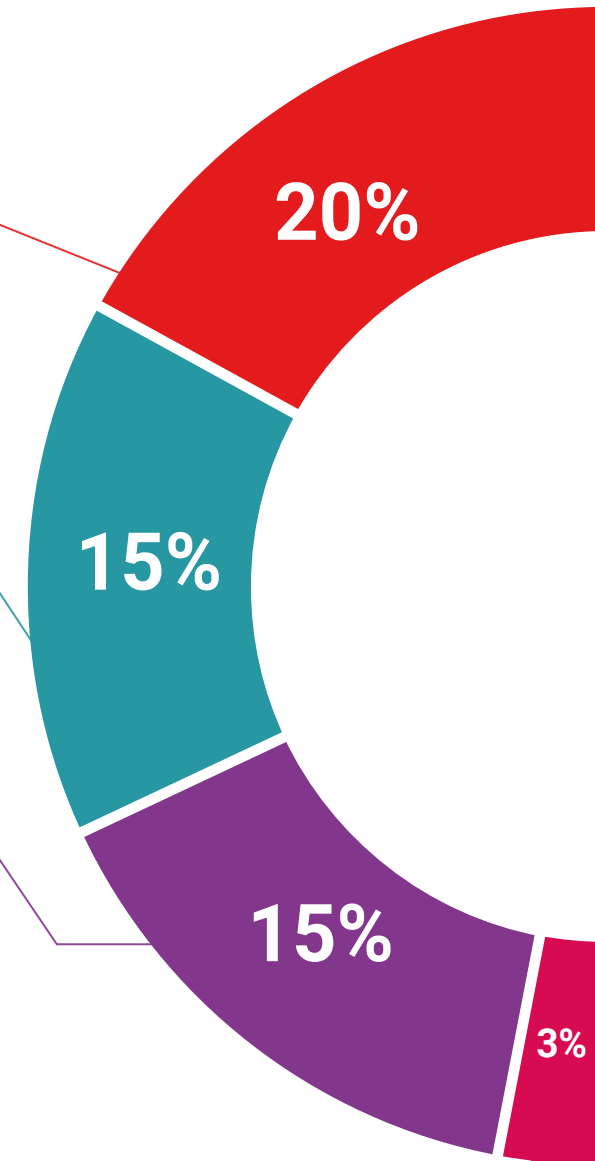
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

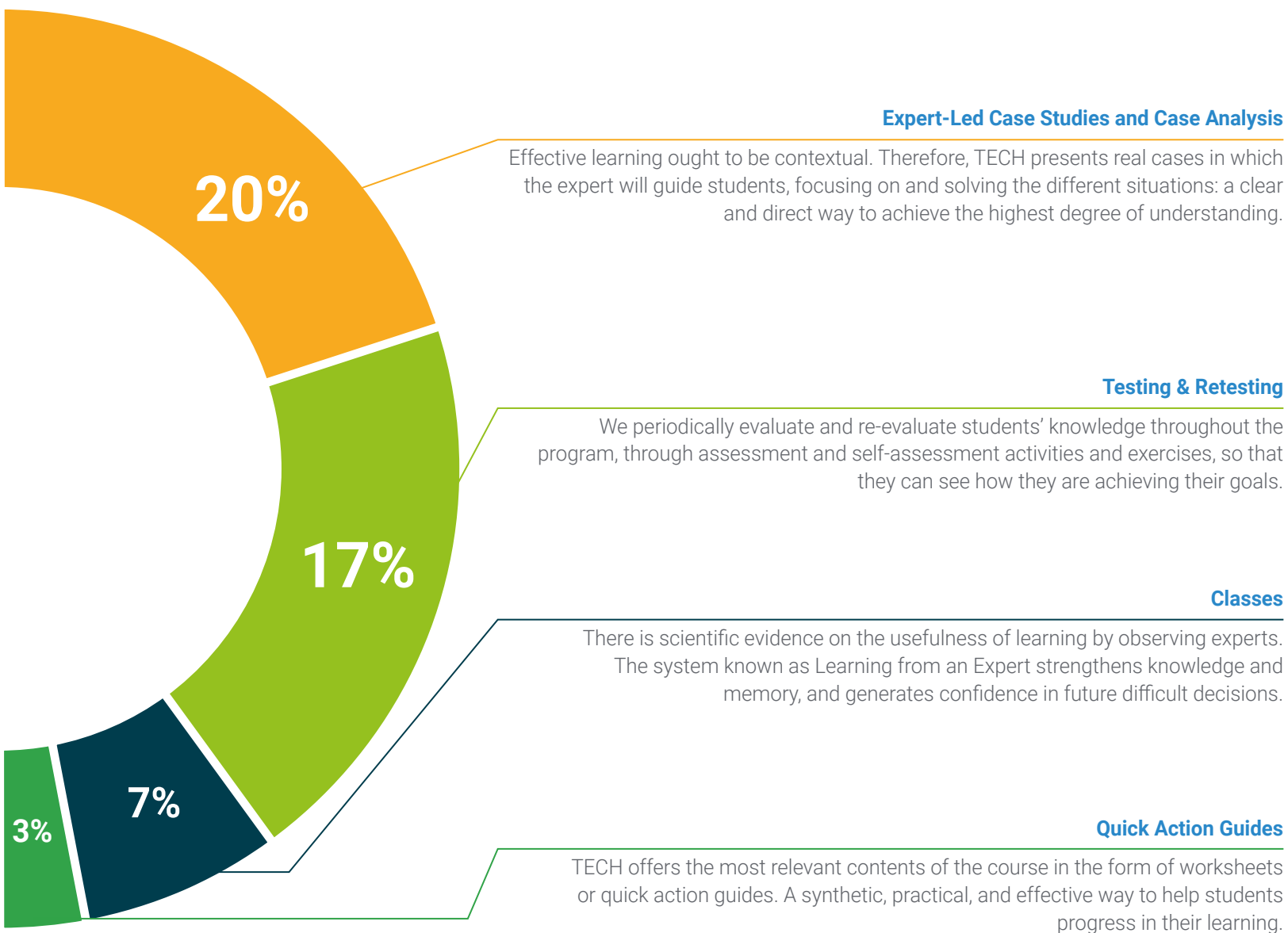
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





07 Certificate

The Master's Degree in Sports Medicine guarantees you, in addition to the most rigorous and updated training, access to a professional Master's Degree issued by TECH Global University.



“

*Successfully complete this program
and receive your university degree
without travel or laborious paperwork”*

This program will allow you to obtain your **Master's Degree diploma in Sports Medicine** 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.

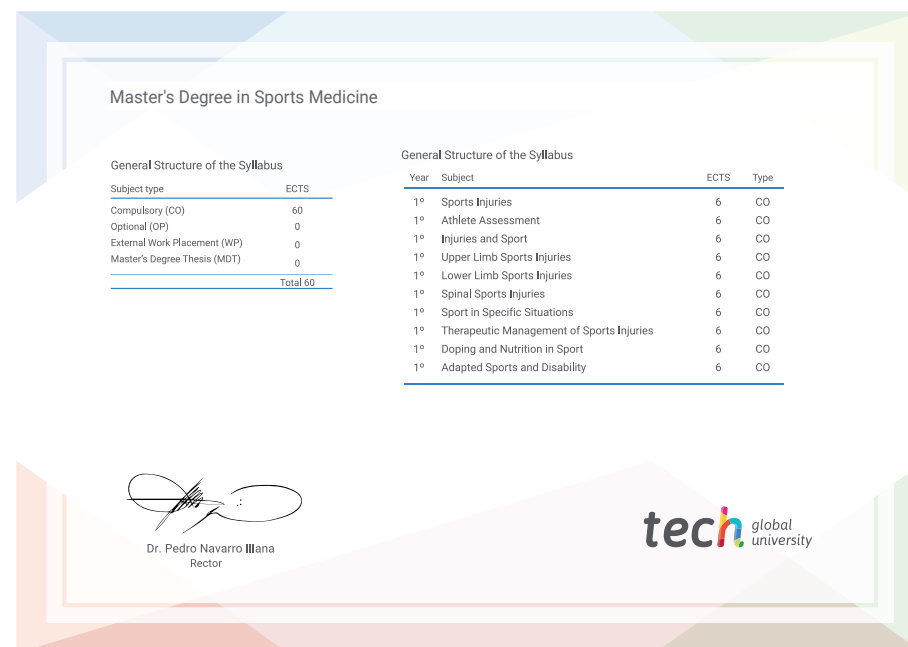
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Sports Medicine**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present quality
development language
virtual classroom



Master's Degree Sports Medicine

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Master's Degree Sports Medicine

Endorsed by the NBA

