

Postgraduate Diploma

Exercise for the Rehabilitation of Sports Injuries and Functional Recovery

Endorsed by the NBA



tech technological
university





Postgraduate Diploma

Exercise for the Rehabilitation of Sports Injuries and Functional Recovery

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

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-exercise-rehabilitation-sports-injuries-functional-recovery

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01

Introduction

Sports injuries have a number of particularities that must be taken into account when proposing rehabilitation. For this purpose, there are specific exercises adapted for sports injuries that allow patients to recover functionally. For this reason, it is necessary for physicians in charge of this type of rehabilitation to obtain advanced education to enable them to work safely in this field.





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Increase your specialization in the field of sports injury rehabilitation and achieve a fast recovery of your patients"

The planning of programs and selection of the type of exercises is an essential aspect to successfully achieve an adequate and successful functional recovery. The main objective of functional recovery is to train the injured subject, with body damage or dysfunction, performing three-dimensional movements, preparing the body for its reincorporation into daily activity.

In this sense, this program will show what functional rehabilitation consists of, how the proprioception mechanism is produced, as well as the joint receptors and the control capacity at a neuromuscular level. In addition, the characteristics of the central nervous system and how it intervenes in motor control will be discussed.

Therapeutic pilates will also be introduced as a technique for the improvement and evolution of functional capacity in cases such as low back pain, cervical pain, multiple sclerosis, arthritis, after hip, shoulder and knee prosthesis implantation, rotator cuff recovery, after arthroscopic surgery, sprains, scoliosis, impingement, stroke, Parkinson's disease, etc.

On the other hand, it should be noted that the organism is composed of chemical elements, such as carbon, hydrogen, oxygen, nitrogen, sulfur, etc. All of these are obtained through the ingestion of water, inhalation of air and, above all, the consumption of food. An adequate and proportionate intake of nutrient will condition a better or worse state of health and therefore a greater or lesser regenerative capacity of the organism. It is therefore essential to have adequate knowledge in nutrition, which will allow you to improve your advice to athletes.

In addition to all this, professionals will have access to exclusive Masterclasses, led by two internationally renowned experts in Rehabilitation and Readaptation of Sports Injuries. Thanks to the valuable guidance of these specialists, who have extensive experience in the field of elite sports and the NBA, physicians will be kept abreast of the latest advances in the prevention and recovery of these types of injuries.

This **Postgraduate Diploma in Exercise for the Rehabilitation of Sports Injuries and Functional Recovery** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- ◆ The development of numerous case studies presented by specialists in sports rehabilitation
- ◆ The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice
- ◆ Exercises where the self-assessment process can be carried out to improve learning.
- ◆ Algorithm-based interactive learning system for decision making
- ◆ Its special emphasis on innovative methodologies in sports rehabilitation
- ◆ 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



Get into exclusive Masterclasses, featuring NBA and elite sport experts, renowned coaches and internationally renowned therapists"

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This Postgraduate Diploma is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Sports Rehabilitation, you will earn a degree from TECH Global University"

It includes in its teaching staff professionals belonging to the medical field, who pour into this specialization the experience of their work, in addition to recognized specialists of reference societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

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

The Postgraduate Diploma allows specialization in simulated environments that provide immersive learning programmed to prepare for real situations.

This 100% online Postgraduate Diploma will allow you to balance your studies with your professional work while expanding your knowledge in this field.



02 Objectives

The main objective of this program is the development of theoretical and practical learning, so that the physician can master sports rehabilitation in a practical and rigorous way.



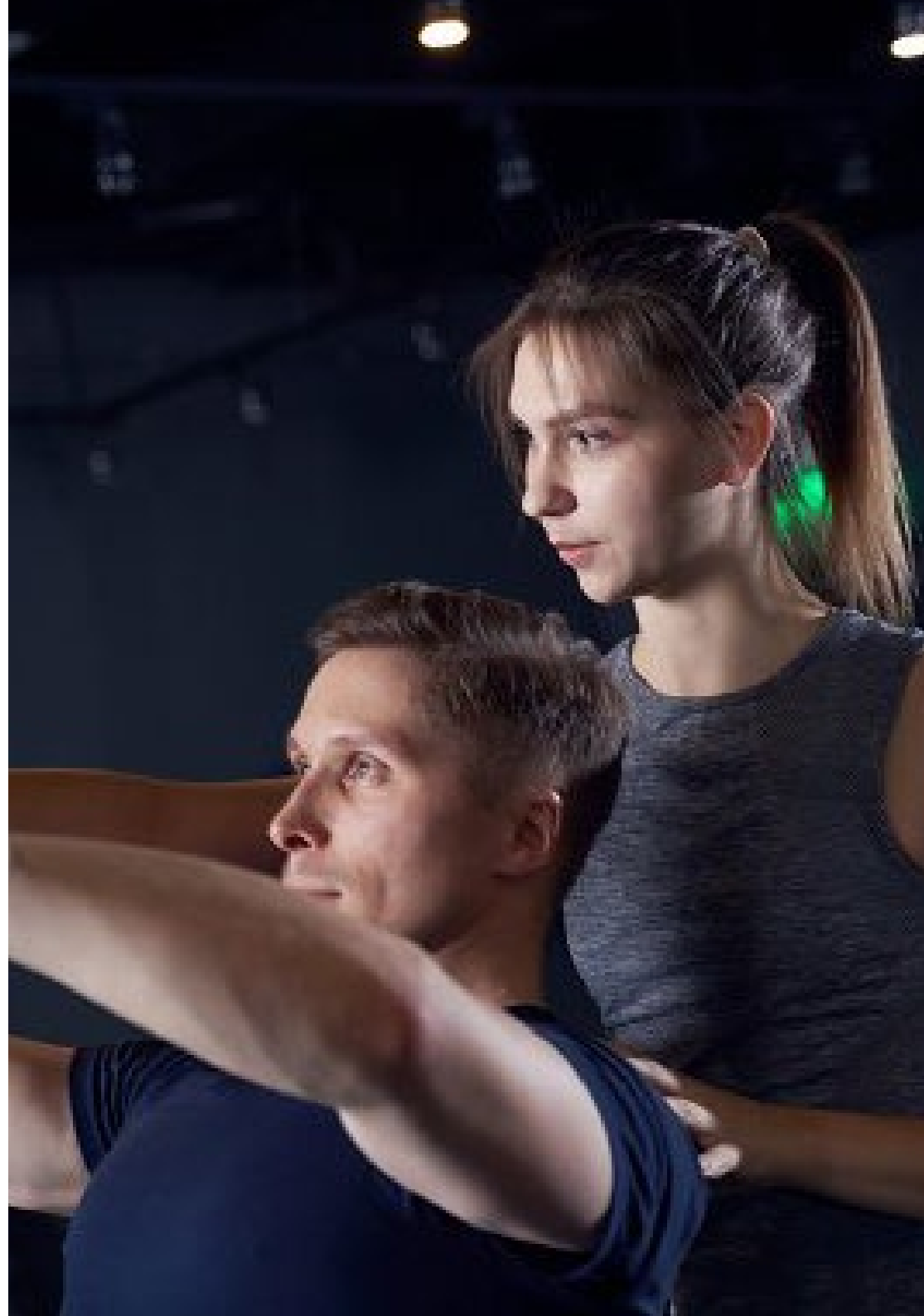
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Our goal is to achieve academic excellence and help you achieve professional success. Don't hesitate any longer and join us”



General Objectives

- ◆ Acquire specialized knowledge in sports rehabilitation, injury prevention and functional recovery
- ◆ Assess the athlete from the point of view of physical, functional and biomechanical condition to detect aspects that hinder recovery or favor relapses in the injury
- ◆ Design both specific readaptation and recovery work, as well as individualized integral work
- ◆ Acquire a specialization in the pathologies of the locomotor system with the highest incidence in the population as a whole
- ◆ Be able to plan prevention, rehabilitation and functional rehabilitation programs.
- ◆ Delve into the characteristics of the most common types of injuries suffered by athletes today
- ◆ Assess the subject's nutritional needs and make nutritional recommendations and nutritional supplements to support the recovery process
- ◆ Evaluate and monitor the evolutionary process of recovery and/or rehabilitation of an athlete's or user's injury
- ◆ Acquire skills and abilities in sports readaptation, prevention and recovery
- ◆ Differentiate from an anatomical point of view the different parts and structures of the human body
- ◆ To improve the injured athlete's physical condition as part of the integral work with the objective of achieving a better and efficient recovery after the injury
- ◆ Use *coaching* techniques that allow to face general psychological aspects of the athlete or injured patient that favor an effective approach from the personal training work
- ◆ Understanding marketing as a key tool for success in personal training in the field of rehabilitation, prevention and functional recovery





Specific Objectives

Module 1. Exercise for the Rehabilitation of Sports Injuries

- ◆ Establishing exercise and physical activity as a strategy for improving health
- ◆ Classify the different types of exercises according to the planning of the personalized training to be performed
- ◆ Differentiate the different types of specific physical exercises according to the muscles or muscle groups to be readapted
- ◆ Manage the different techniques applied in the treatment of injuries produced in sports practice
- ◆ Employ proprioceptive re-education in all rehabilitation and recovery processes, as well as for a lower prevalence of injury recurrence
- ◆ Plan and design specific programs and protocols with preventive effects
- ◆ Manage the different types of sports and essential sports practices as adjuvants during the process of functional rehabilitation and recovery

Module 2. Exercise for Functional Recovery

- ◆ Analyze the different possibilities offered by functional training and advanced rehabilitation. and advanced rehabilitation
- ◆ Apply the Pilates method as an integral system for the rehabilitation of the locomotor system in functional recovery
- ◆ Plan specific Pilates exercises and programs for the different zones of the locomotor apparatus with and without apparatus

Module 3. Nutrition for Functional Recovery and Rehabilitation

- ◆ Approach the concept of integral nutrition as a key element in the rehabilitation and functional recovery process
- ◆ Distinguish the different structures and properties of both macronutrients and micronutrients
- ◆ Prioritize the importance of both water intake and hydration in the recovery process
- ◆ Analyze the different types of phytochemicals and their essential role in improving the state of health and regeneration of the organism



The sports field requires prepared professionals and we give you the keys to position yourself among the professional elite"

03

Course Management

This teaching team, experts in Sports Rehabilitation, has a wide prestige in the profession and are professionals with years of teaching experience who have come together to help students to boost their profession. To this end, they have developed this Postgraduate Diploma with recent updates in the field, which will allow you to specialize and increase your skills in this sector.





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Learn from the best professionals and become a successful professional yourself”

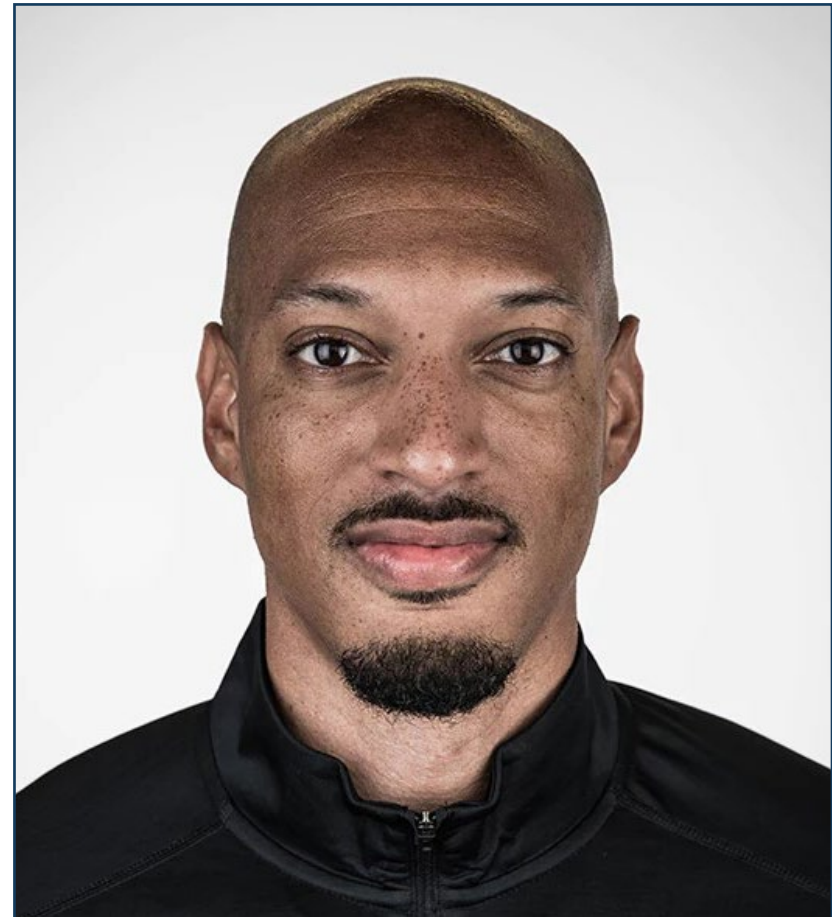
International Guest Director

Dr. Charles Loftis is a renowned specialist who serves as a **sports performance therapist** for the **Portland Trail Blazers** in the **NBA**. His impact on the world's premier basketball league has been significant, bringing distinguished expertise in creating strength and conditioning programs.

Prior to joining the Trail Blazers, he was the head strength and conditioning coach for the Iowa Wolves, implementing and overseeing the development of a comprehensive player program. In fact, his experience in the sports performance field began with the establishment of XCEL Performance and Fitness, of which he was the founder and head coach. There, Dr. Charles Loftis worked with a wide range of athletes to develop strength and conditioning programs, as well as working on the **prevention and rehabilitation of sports injuries**.

His academic background in the field of chemistry and biology gives him a unique perspective on the science behind sports performance and physical therapy. As such, he holds CSCS and RSCC designations from the National Strength and Conditioning Association (NSCA), which recognise his knowledge and skills in the field. He is also certified in PES (Performance Enhancement Specialist), CES (Corrective Exercise Specialist) and dry needling.

All in all, Dr. Charles Loftis is a vital member of the NBA community, working directly with both the strength and performance of elite athletes as well as the necessary prevention and rehabilitation of various sports injuries.



Dr. Loftis, Charles

- Physical Trainer at the Portland Trail Blazers, Portland, United States
- Head Strength and Conditioning Coach for the Iowa Wolves
- Founder and Head Coach at XCEL Performance and Fitness
- Head Performance Coach for Oklahoma Christian University men's basketball team
- Physical Therapist at Mercy
- PhD in Physical Therapy from Langston University
- Degree in Chemistry and Biology from Langston University

“

Thanks to TECH you will be able to learn with the best professionals in the world"

International Guest Director

Isaiah Covington is a highly skilled performance coach, with extensive experience in treating and addressing a variety of injuries in elite athletes. In fact, his professional career has been directed towards the **NBA**, one of the most important sports leagues in the world. He is the **performance coach of the Boston Celtics**, one of the most important teams in the Eastern Conference and with the greatest projection in the United States.

His work in such a demanding league has made him specialize in maximizing the **physical** and **mental potential** of the players. Key to this has been his past experience with other teams, such as the Golden State Warriors and the Santa Cruz Warriors. This has also allowed him to work on sports injuries, focusing on the **prevention** and **rehabilitation** of the most common injuries in elite athletes.

In academia, his interests have been in the fields of **kinesiology**, **exercise science** and **high performance sport**. This has led him to excel prolifically in the NBA, working day-to-day with some of the most important basketball players and coaching staffs in the world.



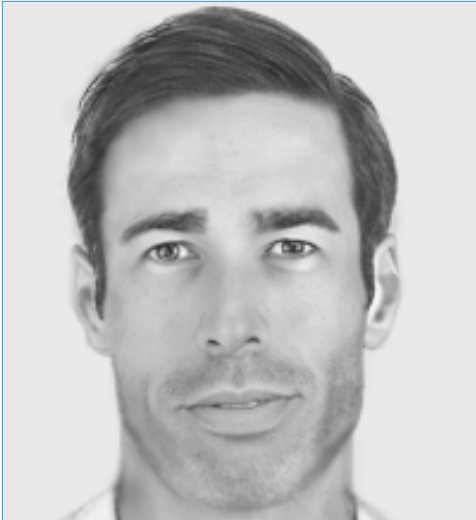
Mr. Covington, Isaiah

- Performance Coach and Fitness Trainer for the Boston Celtics, Boston, USA
- Performance Coach of the Golden State Warriors
- Head Performance Coach, Santa Cruz Warriors, Santa Cruz, USA
- Performance Coach at Pacers Sports & Entertainment
- Degree in Kinesiology and Exercise Science from the University of Delaware
- Specialization in Training Management
- Master's Degree in Kinesiology and Exercise Science from Long Island University
- Master's Degree in Performance Sport from the Australian Catholic University



Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

Management



Dr. González Matarín, Pedro José

- ♦ Technical researcher of Health Education in Murcia.
- ♦ Teacher and researcher at the University of Almeria
- ♦ Teacher and researcher at the University of Almeria
- ♦ High Performance Coach
- ♦ Doctor in Health Sciences
- ♦ Degree in Physical Education.
- ♦ Master's Degree in Functional Recovery in Physical Activity and Sport
- ♦ Master's Degree in Regeneration Medicine
- ♦ Master's Degree in Physical Activity and Health
- ♦ Master's Degree in Dietetics and Diet Therapy
- ♦ Member of: SEEDO and AEEM



04

Structure and Content

The structure of the contents has been designed by a team of professionals familiar with the importance of the program in daily practice, aware of the current relevance of quality education in the field of personal training, and committed to quality teaching through new educational technologies.





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We have the most complete and up-to-date scientific program on the market. We want to provide you with the best education”

Module 1. Exercise for the Rehabilitation of Sports Injuries

- 1.1. Physical Activity and Physical Exercise for Health Improvement
- 1.2. Classification and Selection Criteria for Exercises and Movements
- 1.3. Principles of Sports Training
 - 1.3.1. Biological Principles
 - 1.3.1.1. Functional Unit
 - 1.3.1.2. Multilaterality
 - 1.3.1.3. Specificity
 - 1.3.1.4. Overload
 - 1.3.1.5. Supercompensation
 - 1.3.1.6. Individualization
 - 1.3.1.7. Continuity
 - 1.3.1.8. Progression
 - 1.3.2. Pedagogical Principles
 - 1.3.2.1. Transfer
 - 1.3.2.2. Efficacy
 - 1.3.2.3. Voluntary Stimulation
 - 1.3.2.4. Accessibility
 - 1.3.2.5. Periodization
- 1.4. Techniques Applied to the Treatment of Sports Injuries
- 1.5. Specific Action Protocols
- 1.6. Phases of the Process of Organic Recovery and Functional Recovery
- 1.7. Design of Preventive Exercises
- 1.8. Specific Physical Exercises by Muscle Groups
- 1.9. Proprioceptive Reeducation
 - 1.9.1. Bases of Proprioceptive and Kinesthetic Training
 - 1.9.2. Proprioceptive Consequences of Injury
 - 1.9.3. Development of Sport Proprioception
 - 1.9.4. Materials for Proprioception Work
 - 1.9.5. Phases of Proprioceptive Re-education
- 1.10. Sports Practice and Activity During the Recovery Process



Module 2. Exercise for Functional Recovery

- 2.1. Functional Training and Advanced Rehabilitation
 - 2.1.1. Function and Functional Rehabilitation
 - 2.1.2. Proprioception, Receptors and Neuromuscular Control
 - 2.1.3. Central Nervous System: Integration of Motor Control
 - 2.1.4. Principles for the Prescription of Therapeutic Exercise
 - 2.1.5. Restoration of Proprioception and Neuromuscular Control
 - 2.1.6. The 3-Phase Rehabilitation Model
- 2.2. The Science of Pilates in Rehabilitation
- 2.3. Principles of Pilates
- 2.4. The Integration of Pilates in Rehabilitation
- 2.5. Methodology and Equipment Necessary for Effective Practice
- 2.6. Cervical and Thoracic Spine
- 2.7. Lumbar Spine
- 2.8. Shoulder and Hip
- 2.9. Knee
- 2.10. Foot and Ankle

Module 3. Nutrition for Functional Recovery and Rehabilitation

- 3.1. Integral Nutrition as a Key Element in Injury Prevention and Recovery
- 3.2. Carbohydrates
- 3.3. Proteins
- 3.4. Fats
 - 3.4.1. Saturated
 - 3.4.2. Unsaturated
 - 3.4.2.1. Monounsaturated
 - 3.4.2.2. Polyunsaturated
- 3.5. Vitamins
 - 3.5.1. Water Soluble
 - 3.5.2. Fat Soluble

- 3.6. Minerals
 - 3.6.1. Macrominerals
 - 3.6.2. Microminerals
- 3.7. Fiber
- 3.8. Water
- 3.9. Phytochemicals
 - 3.9.1. Phenols
 - 3.9.2. Thiols
 - 3.9.3. Terpenes
- 3.10. Food Supplements for Prevention and Functional Recovery



A unique, key, and decisive educational experience to boost your professional development"

05

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist. The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

“

*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

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 assess 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

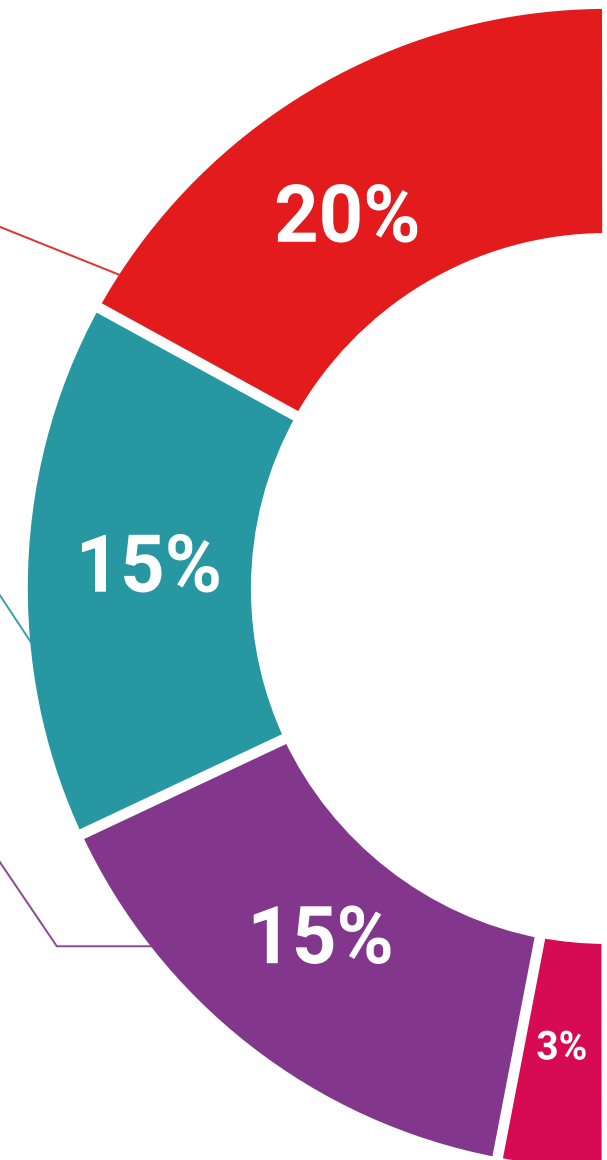
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

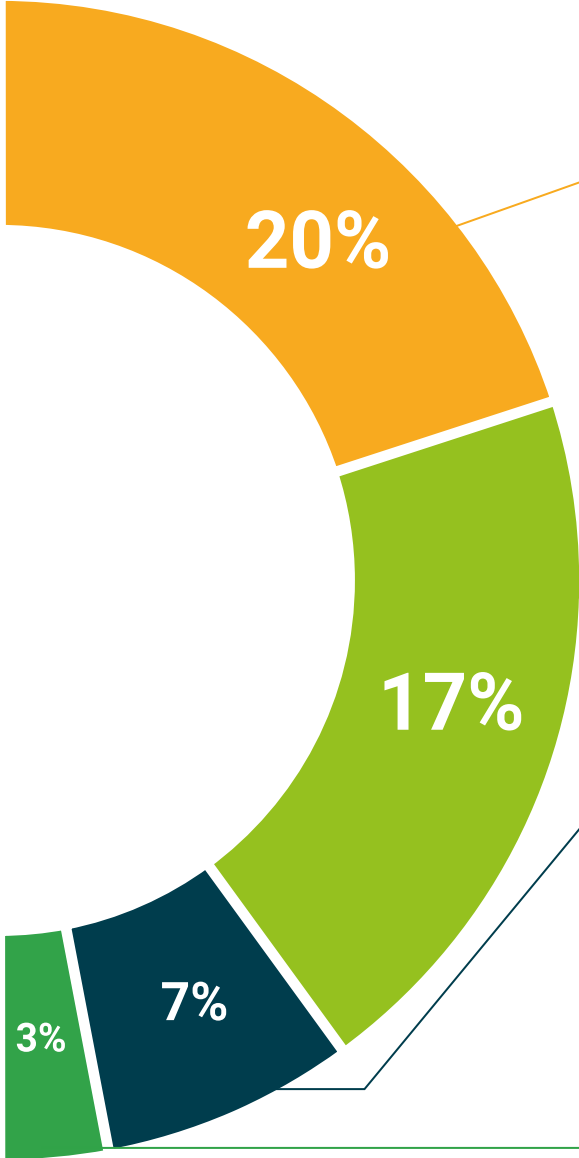
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.
Learning from an expert strengthens knowledge and memory, and generates confidence for 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 Exercise for the Rehabilitation of Sports Injuries and Functional Recovery guarantees, 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”*

This **Postgraduate Diploma in Exercise for the Rehabilitation of Sports Injuries and Functional Recovery** contains the most complete and up-to-date program on the market.

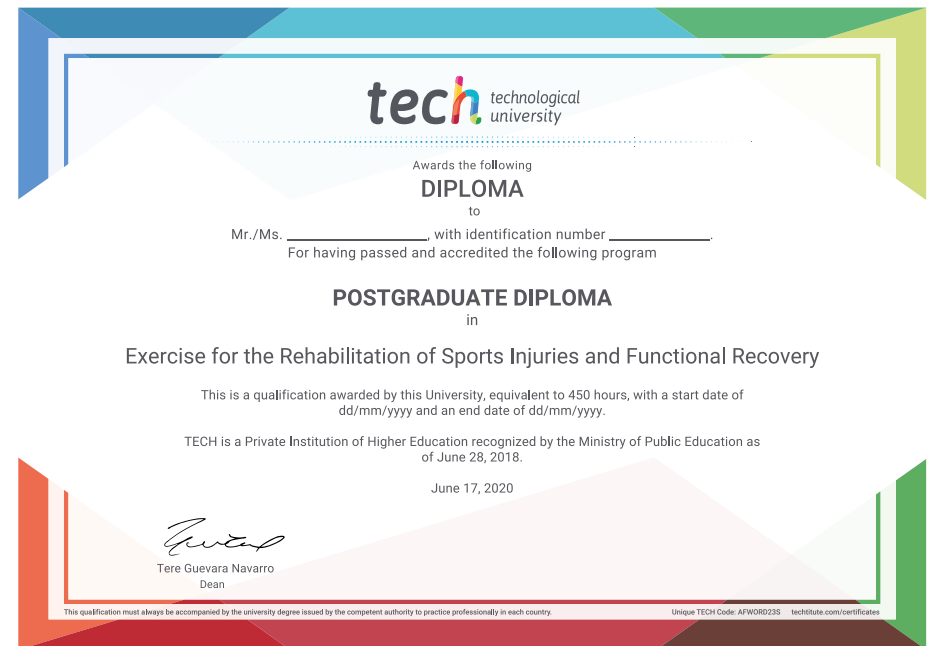
After the students have passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery.

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 career evaluation committees.

Title: **Postgraduate Diploma in Exercise for the Rehabilitation of Sports Injuries and Functional Recovery**

Modality: **online**

Duration: **6 months**



*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.



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