

# Postgraduate Certificate Fitness Instructor in Mobility Training

Endorsed by the NBA



**tech** technological  
university



## Postgraduate Certificate

### Fitness Instructor in Mobility Training

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of hours: 150 h.

Website: [www.techtute.com/sports-science/postgraduate-certificate/fitness-instructor-mobility-training](http://www.techtute.com/sports-science/postgraduate-certificate/fitness-instructor-mobility-training)

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# 01

# Introduction

The professional perspective on mobility exercises has changed considerably in recent years. In the past, this type of physical activity has been considered a complementary element that has been observed from a biomechanical perspective without taking into account its important repercussions on the athlete's performance and health. Therefore, this program focuses on transmitting in-depth knowledge to the sports professional to enable them to know which are the different systems and methods of mobility training, as well as the context in which they should be applied, depending on the objectives to be achieved.





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*Contribute to the change of professional perspective with this academic program and start becoming a reference in the sports sector”*

This program is intended to be a powerful tool in the hands of the professional in laying the theoretical foundations of all aspects related to mobility training. In this sense, mobility has traditionally been a complementary element that has only been observed from a biomechanical prism without taking into account its important repercussions on the athlete's performance and health.

The evidence is increasingly providing new advances that allow us to know more in depth the application of this physical capacity, even so, it has not yet been possible to establish a common terminological basis among sport and physical activity professionals, and there are still popular beliefs that are far from the practical reality.

In this sense, the aim is to establish a starting point towards the knowledge and differences between popular concepts and beliefs about mobility and its training, as well as the objectives and different methods of application and its repercussion in time at a neuromuscular level and, consequently, in sports performance, either optimizing it or reducing recovery times.

It is of equal or greater value to know what the different systems and methods of mobility training are, and how to know the timing, the characteristics of time, intensity or duration, as well as the context in which they should be applied depending on the objectives to be achieved. That is why through this program the student will be able to have the knowledge and didactic resources for an effective and efficient intervention with the athlete.

With all of the above, the student will be able to master mobility from all possible variables. This is one of the features that makes this module unique on the market.

This **Postgraduate Certificate in Fitness Instructor in Mobility Training** contains the most complete and up-to-date program on the market. The most important features of the program include:

- ♦ Practical cases presented by experts in Physical Activity and Sport
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- ♦ 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



*You won't find a more complete and up-to-date program than this one, believe us"*

“*Grow in your profession with the guarantees offered by a degree issued by a great University such as TECH*”

The program includes, in its teaching staff, professionals from the sector who bring their work experience to this refresher program, as well as renowned specialists from 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 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. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Learn the latest in mobility exercises and start to see your career blossom.*

*Stand out in a booming sector and become a reference professional by taking this academic program.*



# 02 Objectives

The main objective of this Postgraduate Certificate is to enhance the student's knowledge of mobility exercises, their application and benefits. For this purpose, a high-level syllabus has been designed based on the latest scientific evidence and created with the utmost scientific rigor. These contents will be taught by a team of top professionals, who will provide the student with valuable tools to work as a Fitness Instructor with greater guarantees of success. In this way, the professional will be able to revalue their profile and position themselves at the forefront of a booming sector.



“*If your goal is to grow within a booming profession, then this program is for you”*



## General Objectives

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- ♦ Acquire knowledge based on the most current scientific evidence with full applicability in the practical field
- ♦ Master all the most advanced methods of sports performance evaluation
- ♦ Master and apply with certainty the most current training methods to improve sports performance and quality of life, as well as to improve the most common pathologies
- ♦ Master the principles governing exercise physiology, as well as biochemistry
- ♦ Successfully integrate all the knowledge acquired in the different modules in real practice



*Welcome to the program that will turn your career around"*





## Specific Objectives

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- ♦ Approach mobility as a basic physical capacity from a neurophysiological perspective
- ♦ Have a deep understanding of the neurophysiological principles that affect the development of mobility
- ♦ Know and apply the stabilizing and mobilizing systems within the movement pattern
- ♦ Develop and specify the basic concepts and objectives related to mobility training
- ♦ Develop the ability to design tasks and plans to improve mobility
- ♦ Know and apply the different methods of performance optimization through recovery methods
- ♦ Develop the ability to perform a functional and neuromuscular assessment of the athlete/client
- ♦ Recognize and address the effects of a neuromuscular injury on the athlete/client

# 03

## Course Management

In its quest for quality education, TECH has brought together in this program a group of first-class professionals who will be in charge of the teaching staff. Thus, the professional who decides to study this program will learn from a faculty of excellence with years of experience in the sector and with the greatest desire to graduate the best in this field. For this reason, this team has also designed the contents of the program, ensuring the student a complete learning experience, based on the highest scientific rigor and the latest developments in the sector.



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*Study with the guarantees offered by learning from prestigious professionals in the sector"*

## Management



### Mr. Rubina, Dardo

- ◆ CEO of Test and Training
- ◆ EDM Physical Training Coordinator
- ◆ Physical trainer of the EDM First Team
- ◆ Master's Degree in High Performance in Sports(ARD) COE
- ◆ EXOS Certification
- ◆ Specialist in Strength Training for the Prevention of Injuries, Functional and Physical-Sports Rehabilitation
- ◆ Specialist in Strength Training Applied to Physical and Sports Performance
- ◆ Certification in Weight Management and Physical Performance Technologies
- ◆ Postgraduate course in Physical Activity in Populations with Pathologies
- ◆ Diploma in Advanced Studies (DEA) University of Castilla la Mancha
- ◆ PhD in High Performance Sports(ARD)



## Professors

### Mr. Jareño Díaz, Juan

- ◆ Coordinator of the education and physical preparation area at the Moratalaz Sports School
- ◆ Degree in Physical Activity and Sports Sciences from the University of Castilla la Mancha
- ◆ Master's Degree in Physical Preparation in Soccer
- ◆ Master's Degree in Secondary Education Teaching
- ◆ Postgraduate course in Personal Training Specialist

# 04

## Structure and Content

The structure and contents of this Postgraduate Certificate in Fitness Instructor in Mobility Training have been conceived, designed and created by a group of professionals of reference in the physical activity sector. This team, aware of the relevance and timeliness of education in this field, has made a major effort to generate the most complete and up-to-date syllabus on the market. A compendium of contents that is complemented by the work of other experts, who provide the syllabus with a highly didactic multimedia format that provides the student with an immersive, complete and contextual learning experience.





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*An excellent syllabus designed taking into account the latest scientific evidence is what TECH offers you with this program"*

## Module 1. Mobility Training

- 1.1. Neuromuscular System
  - 1.1.1. Neurophysiological Principles: Inhibition and Excitability
    - 1.1.1.1. Adaptations of the Nervous System
    - 1.1.1.2. Strategies to Modify Corticospinal Excitability
    - 1.1.1.3. Keys to Neuromuscular Activation
  - 1.1.2. Somatosensory Information Systems
    - 1.1.2.1. Information Subsystems
    - 1.1.2.2. Types of Reflexes
      - 1.1.2.2.1. Monosynaptic Reflexes
      - 1.1.2.2.2. Polysynaptic Reflexes
      - 1.1.2.2.3. Muscle-Tendinous-Articular Reflexes
    - 1.1.2.3. Responses to Dynamic and Static Stretches
- 1.2. Motor Control and Movement
  - 1.2.1. Stabilizing and Mobilising Systems
    - 1.2.1.1. Local System: Stabilizer System
    - 1.2.1.2. Global System: Mobilizing System
    - 1.2.1.3. Respiratory Pattern
  - 1.2.2. Movement Pattern
    - 1.2.2.1. Coactivation
    - 1.2.2.2. Joint by Joint Theory
    - 1.2.2.3. Primary Motion Complexes
- 1.3. Understanding Mobility
  - 1.3.1. Key Concepts and Beliefs in Mobility
    - 1.3.1.1. Manifestations of Mobility in Sport
    - 1.3.1.2. Neurophysiological and Biomechanical Factors Influencing Mobility Development
    - 1.3.1.3. Impact of Mobility on Strength Development
  - 1.3.2. Objectives of Training Mobility in Sport
    - 1.3.2.1. Mobility in the Training Session
    - 1.3.2.2. Benefits of Mobility Training
  - 1.3.3. Mobility and Stability by Structures
    - 1.3.3.1. Foot-Ankle Complex
    - 1.3.3.2. Knee-Hip Complex
    - 1.3.3.3. Spine-Shoulder Complex
- 1.4. Training Mobility
  - 1.4.1. Fundamental Block
    - 1.4.1.1. Strategies and Tools to Optimize Mobility
    - 1.4.1.2. Specific Pre-Exercise Plan
    - 1.4.1.3. Specific Post-Exercise Plan
  - 1.4.2. Mobility and Stability in Basic Movements
    - 1.4.2.1. Squat & Dead Lift
    - 1.4.2.2. Acceleration & Multidirection
- 1.5. Methods of Recovery
  - 1.5.1. Proposal for Effectiveness Based on Scientific Evidence
- 1.6. Methods for Training Mobility
  - 1.6.1. Tissue-Centered Methods: Passive Tension and Active Tension Stretching
  - 1.6.2. Methods Focused on Arthro-Coinematics: Isolated Stretching and Integrated Stretching
  - 1.6.3. Eccentric Training
- 1.7. Mobility Training Program
  - 1.7.1. Effects of Stretching in the Short and Long Term
  - 1.7.2. Optimal Timing for Applying Stretching



- 1.8. Athlete Assessment and Analysis
  - 1.8.1. Functional and Neuromuscular Assessment
    - 1.8.1.1. Assessment
    - 1.8.1.2. Assessment Process
      - 1.8.1.2.1. Analyze the Movement Pattern
      - 1.8.1.2.2. Identify the Test
      - 1.8.1.2.3. Detect the Weak Links
  - 1.8.2. Athlete Assessment Methodology
    - 1.8.2.1. Types of Tests
      - 1.8.2.1.1. Analytical Assessment Test
      - 1.8.2.1.2. General Assessment Test
      - 1.8.2.1.3. Specific-Dynamic Assessment Test
    - 1.8.2.2. Assessment by Structures
      - 1.8.2.2.1. Foot-Ankle Complex
      - 1.8.2.2.2. Knee-Hip Complex
      - 1.8.2.2.3. Spine-Shoulder Complex
- 1.9. Mobility in Injured Athletes
  - 1.9.1. Pathophysiology of Injury: Effects on Mobility
    - 1.9.1.1. Muscle Structure
    - 1.9.1.2. Tendon Structure
    - 1.9.1.3. Ligament Structure
  - 1.9.2. Mobility and Prevention of Injuries: Practical Case
    - 1.9.2.1. Ruptured Ischialis in the Runner

“ You are just one click away from enrolling in an immersive, comprehensive program that will lay the foundation for your professional growth”

# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

### Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



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.

With this methodology, we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



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.



#### 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 in future difficult decisions.



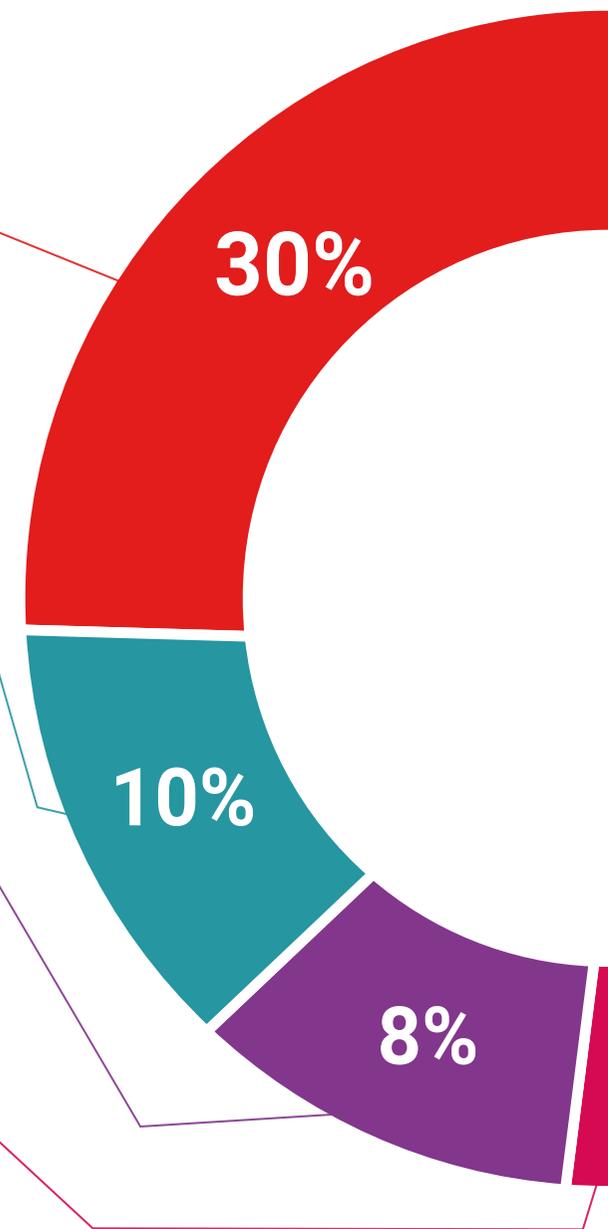
#### Practising Skills and Abilities

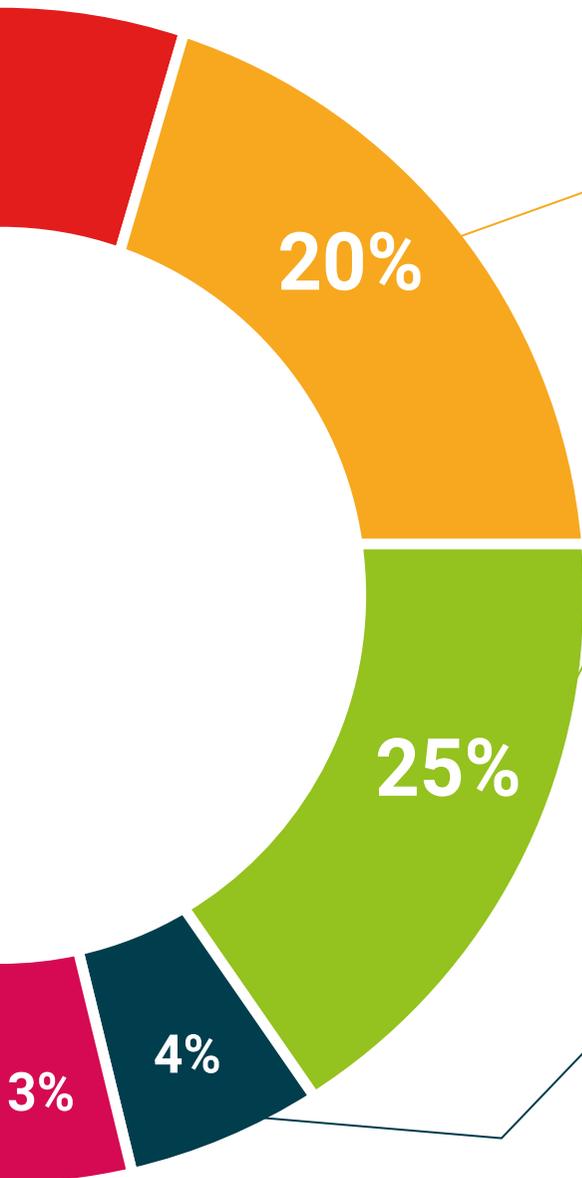
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



#### 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.





#### Case Studies

Students will complete a selection of the best case studies chosen specifically for this situation. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### 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".



#### 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.



# 06 Certificate

The Postgraduate Certificate in Fitness Instructor in Mobility Training guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Fitness Instructor in Mobility Training** 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 Certificate** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Certificate in Fitness Instructor in Mobility Training**

Official N° of Hours: **150 h.**

**Endorsed by the NBA**



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

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



**Postgraduate Certificate**  
Fitness Instructor in  
Mobility Training

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of hours: 150 h.

# Postgraduate Certificate

## Fitness Instructor in Mobility Training

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university

