

# Postgraduate Certificate Strength Training in Situational Sports

Endorsed by the NBA



**tech** technological  
university



## Postgraduate Certificate Strength Training in Situational Sports

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/sports-science/postgraduate-certificate/strength-training-situational-sports](http://www.techtute.com/pk/sports-science/postgraduate-certificate/strength-training-situational-sports)

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# 01

# Introduction

Being a very strong athlete in a given exercise does not necessarily mean being a strong athlete for the specific requirements of the game. From this perspective, developing movement ability as a basic pedagogical principle of training, which is the "transfer" to specific performance, is of great importance. Therefore, with this high-level program you will specialize in strength training in situational sports, under the guidance of professionals with extensive experience in the field.



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*This 100% online Postgraduate Certificate will allow you to combine your studies with your professional work while increasing your knowledge in this field"*

In recent years, strength training has burst with great impetus in the scientific community, covering multiple contexts ranging from sports performance in time and brand sports to situational sports, including the whole range of sports modalities.

Historically, situational sports have not only incorporated methodologies from other disciplines, but have also transformed the objective of these disciplines into their own, considering the objective of developing strength on an exercise, when this is only a means to their own reality. Based on this reality, it is essential that situational sports build their own objectives for the development of strength and with it the creation of their methodology.

The student of this course will have a differentiating renewal with respect to their professional colleagues, being able to perform in all areas of sport as a specialist in Strength Training.

The teaching team of this Course in Strength Training in Situational Sports has made a careful selection of each of the topics of this training in order to offer the student a study opportunity as complete as possible and always linked to current events.

Thus, at TECH we have set out to create contents of the highest teaching and educational quality that will turn our students into successful professionals, following the highest quality standards in teaching at an international level. Therefore, we show you this course with a rich content that will help you reach the elite of physical training. In addition, as it is an online course, the student is not conditioned by fixed schedules or the need to move to another physical location, but can access the contents at any time of the day, balancing their work or personal life with their academic life.

This **Postgraduate Certificate in Strength Training in Situational Sports** 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 personal training
- ◆ The graphic, schematic and eminently 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 decisionmaking.
- ◆ Special emphasis on innovative methodologies in personal training
- ◆ 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



*Immerse yourself in the study of this university Postgraduate Certificate of high scientific rigor and improve your skills in strength training for high performance sports"*

“

*This course is the best investment you can make in selecting a refresher program for two reasons: in addition to updating your knowledge as a personal trainer, you will earn a degree from the leading online university in Spanish: TECH”*

Its teaching staff includes professionals belonging to the field of sports sciences, who bring to this training the experience of their work, as well as recognized specialists from leading companies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an 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 during the academic year. For this, the professional will be assisted by an innovative interactive video system developed by recognized experts in Strength Training under the Complex Dynamic Systems Paradigm and with great experience.

*This course allows training in simulated environments, which provide immersive learning programmed to train for real situations.*

*Increase your knowledge in Strength Training in Situational Sports with this high-level training.*



# 02 Objectives

The main objective of this program is the development of theoretical and practical learning, so that the sports science professional can master in a practical and rigorous way the Strength Training in Situational Sports.







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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

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- ◆ Delve into the knowledge based on the most current scientific evidence with full applicability in the practical field of strength training.
- ◆ Master all the most advanced methods of strength training.
- ◆ Apply with certainty the most current training methods to improve sports performance regarding strength.
- ◆ Effectively master strength training for performance enhancement in time and mark sports as well as situational sports.
- ◆ Master the principles governing Exercise Physiology, as well as Biochemistry
- ◆ Delve into the principles that govern the Theory of Complex Dynamic Systems as they relate to strength training.
- ◆ Successfully integrate strength training for the improvement of Motor Skills immersed in sport.
- ◆ Successfully master all the knowledge acquired in the different modules in real practice.





## Specific Objectives

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- ◆ Gain an in-depth understanding of the logic of movement-based training design
- ◆ Differentiate between means and methods for strength
- ◆ Detect priority movement patterns for applying force in the sport at hand
- ◆ Understand the functioning and application of technological means in the service of strength training

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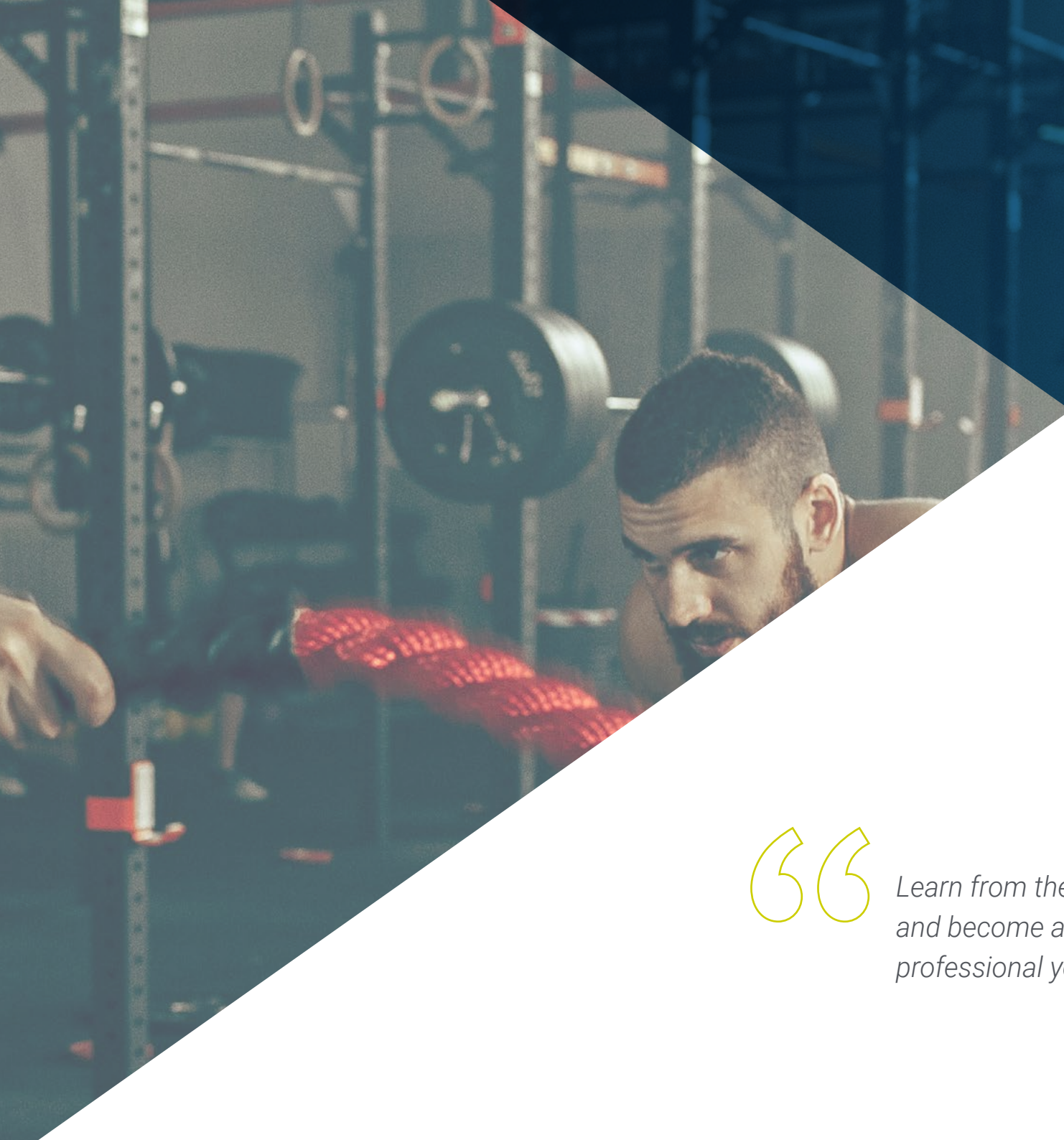
*The sports field requires trained professionals and we give you the keys to position yourself among the professional elite”*

03

# Course Management

Our teachers, made up of experts in personal training, are well known in the profession and are professionals with years of teaching experience who have come together to help you boost your career. To this end, they have developed this Postgraduate Progression with the latest developments in the field that will allow you to train and increase your skills in this sector.





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

## Management



### Rubina, Dardo

- ♦ CEO of Test and Training
- ♦ EDM Physical Training Coordinator
- ♦ Physical trainer of the EDM First Team
- ♦ Master's Degree in 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
- ♦ Specialist in Applied Biomechanics and Functional Evaluation.
- ♦ Certification in Weight Management and Physical Performance Technologies
- ♦ Postgraduate course in Physical Activity in Populations with Pathologies
- ♦ Postgraduate diploma in Injury Prevention and Rehabilitation.
- ♦ Functional Assessment and Corrective Exercise Certificate.
- ♦ Certificate in Functional Neurology.
- ♦ Diploma in Advanced Studies (DEA) University of Castilla la Mancha
- ♦ PhD Candidate in ARD

## Professors

### Graduate. Palarino, Matías

- ◆ Degree in Physical Activity and Sport
- ◆ Physical trainer in Professional Soccer
- ◆ Physical Trainer in Field Hockey
- ◆ Physical Trainer in Rugby
- ◆ Extensive teaching experience in physical preparation and load control courses.

### Graduate. Tinti, Hugo

- ◆ Degree in Physical Activity and Sport
- ◆ Master's Degree in Big Data
- ◆ Specialist in Technologies and Injury Prevention in Soccer
- ◆ Specialist in load management.

### Graduate. Vaccarini, Adrián

- ◆ Degree in sports medicine
- ◆ Head of the Applied Sciences Department of the Peruvian soccer federation
- ◆ Physical trainer of the Peruvian National Soccer Team (present in the last World Cup).

### Graduate. Vilariño, Leandro

- ◆ Degree in Physical Activity and Sport
- ◆ Teacher at the Peruvian Federation of Soccer
- ◆ Teacher of the Postgraduate Diploma in Sports Medicine
- ◆ Physical trainer in professional soccer in the Argentine and Bolivian leagues.



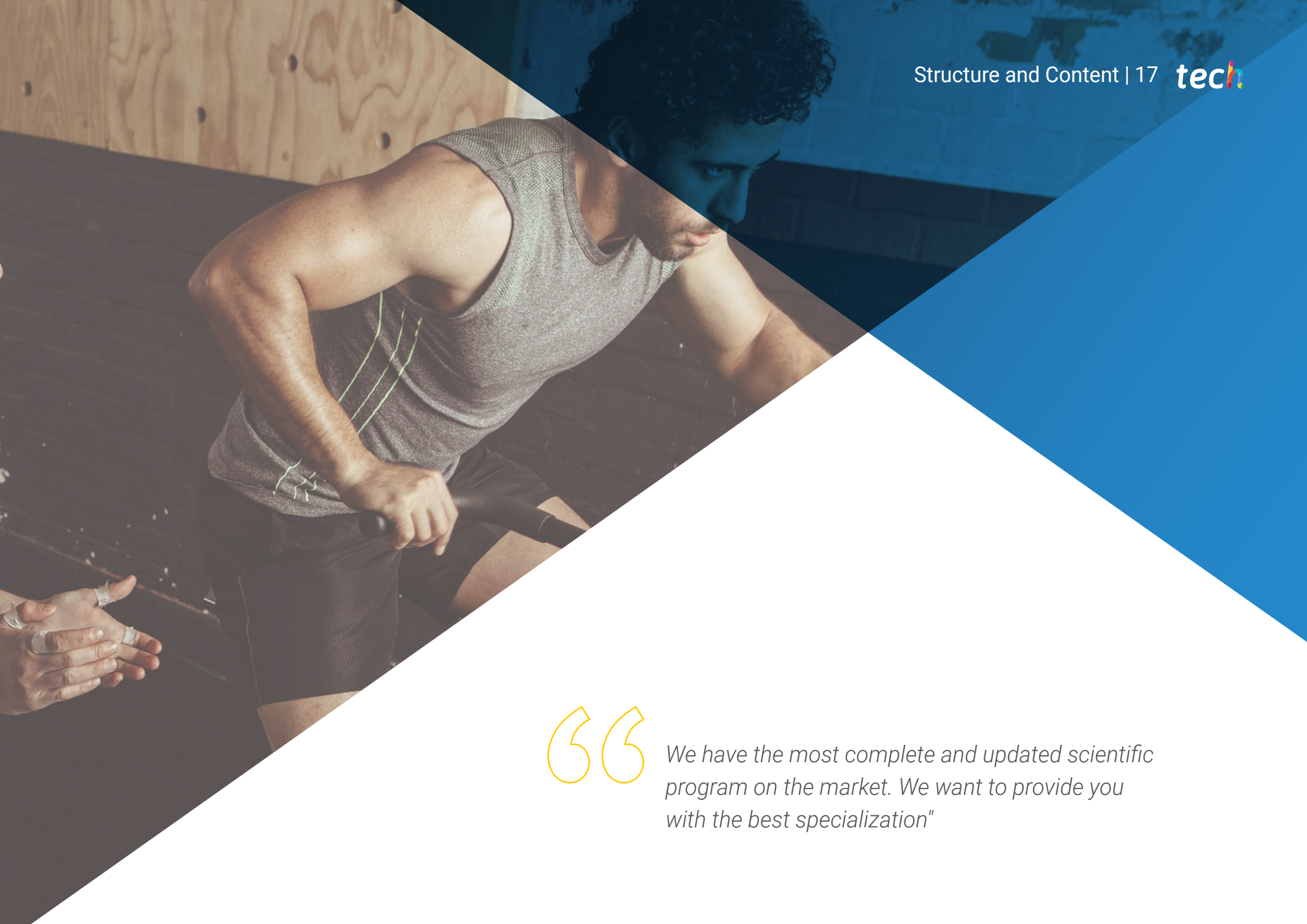
04

# Structure and Content

The content structure has been designed by a team of professionals knowledgeable about the implications of training in daily practice, aware of the relevance of the current relevance of quality specialization in the field of personal training; and committed to quality teaching through new educational technologies.





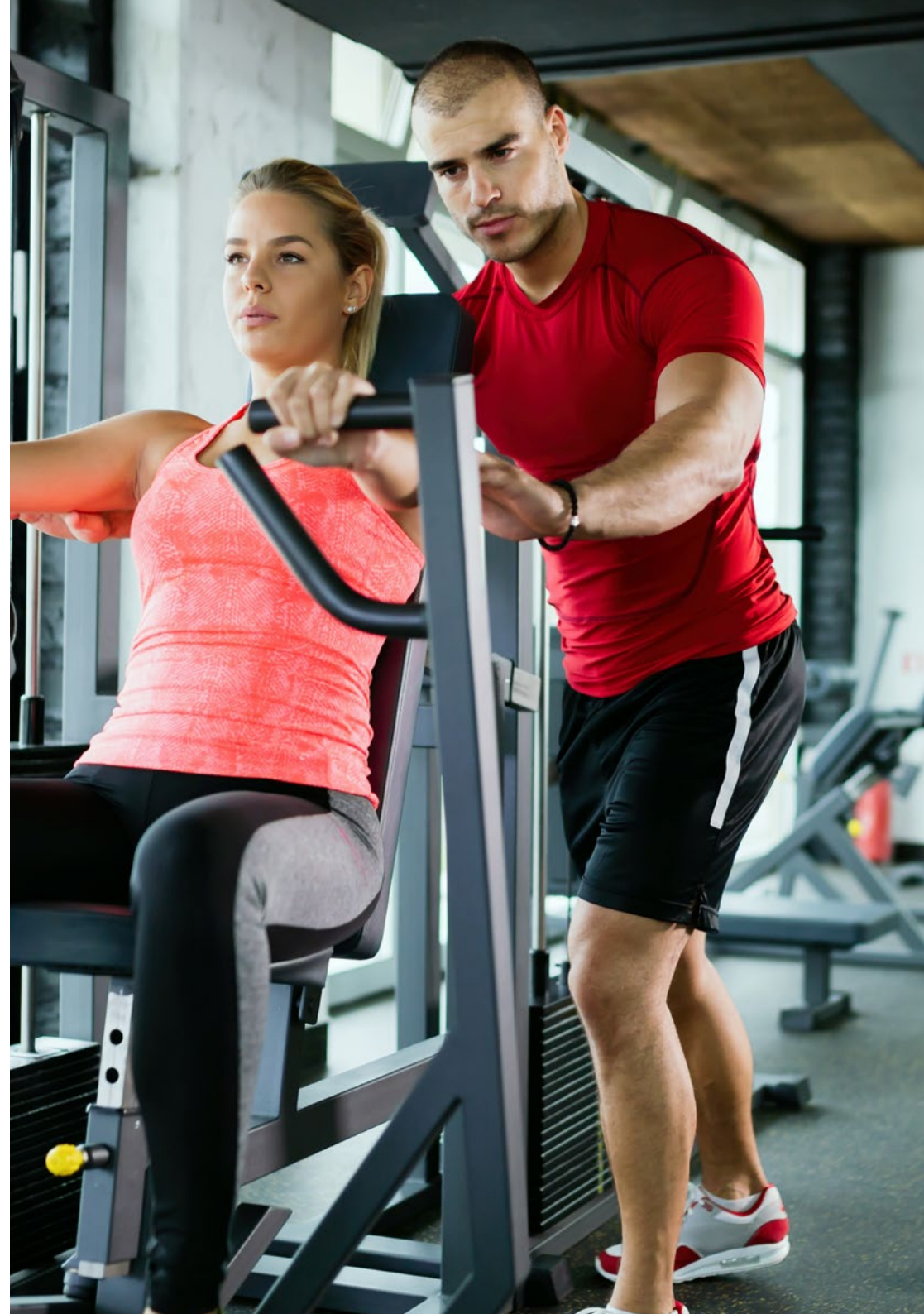


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*We have the most complete and updated scientific program on the market. We want to provide you with the best specialization”*

## Module 1. Strength Training in Situational Sports

- 1.1. Basic Fundamentals
  - 1.1.1. Functional and Structural Adaptations
    - 1.1.1.1. Functional Adaptations
    - 1.1.1.2. Load-Pause Ratio (Density) as a Criterion for Adaptation
    - 1.1.1.3. Strength as a Base Quality
    - 1.1.1.4. Mechanisms or Indicators for Structural Adjustments
    - 1.1.1.5. Utilization, Conceptualization of the Muscular Adaptations Provoked, as an Adaptive Mechanism of the Imposed Load. (Mechanical Stress, Metabolic Stress, Muscle Damage)
  - 1.1.2. Motor Unit Recruitment
    - 1.1.2.1. Recruitment Order, Central Nervous System Regulatory Mechanisms, Peripheral Adaptations, Central Adaptations Using Tension, Speed or Fatigue as a Tool for Neural Adaptation.
    - 1.1.2.2. Order of Recruitment and Fatigue During Maximum Effort
    - 1.1.2.3. Recruitment Order and Fatigue During Submaximal Efforts
    - 1.1.2.4. Fibrillar Recovery
- 1.2. Specific Fundamentals
  - 1.2.1. Movement as a Starting Point
  - 1.2.2. Quality of Movement as a General Objective for Motor Control, Motor Patterning and Motor Programming
  - 1.2.3. Priority Horizontal Movements
    - 1.2.3.1. Accelerating, Braking, Change of Direction with inside leg and outside leg, Maximum Absolute Speed and/or SubMaximum Speed. Technique, Correction and Application According to the Specific Movements in Competition
  - 1.2.4. Priority Vertical Movements
    - 1.2.4.1. Jumps, Hops, Bounds. Technique, Correction and Application According to the Specific Movements in Competition.
- 1.3. Technological Means for the Assessment of Strength Training and External Load Control
  - 1.3.1. Introduction to Technology and Sport
  - 1.3.2. Technology for Strength and Power Training Assessment and Control
    - 1.3.2.1. Rotary Encoder (Operation, Interpretation Variables, Intervention Protocols, Application)
    - 1.3.2.2. Load Cell (Operation, Interpretation Variables, Intervention Protocols, Application)



- 1.3.2.3. Strength Platforms (Operation, Interpretation Variables, Intervention Protocols, Application)
- 1.3.2.4. Electric Photocells (Operation, Interpretation Variables, Intervention Protocols, Application)
- 1.3.2.5. Contact Mat (Operation, Interpretation Variables, Intervention Protocols, Application)
- 1.3.2.6. Accelerometer (Operation, Interpretation Variables, Intervention Protocols, Application)
- 1.3.2.7. Applications for Mobile Devices (Operation, Interpretation Variables, Intervention Protocols, Application).
- 1.3.3. Intervention Protocols for the Assessment and Control of Training.
- 1.4. Controlling the Internal Load
  - 1.4.1. Subjective Load Perception by Rating the Perceived Exertion.
    - 1.4.1.1. Subjective Perception of Load to Estimate Relative Load (% 1MR)
  - 1.4.2. Scope
    - 1.4.2.1. As Exercise Control
      - 1.4.2.1.1. Repetitions and PRE
      - 1.4.2.1.2. Repetitions in Reserve
      - 1.4.2.1.3. Scale of Speed
    - 1.4.2.2. Controlling the Overall Effect of a Session
    - 1.4.2.3. As a Tool for Periodization
      - 1.4.2.3.1. Use of (APRE) Self-Regulated Progressive Resistance Exercise, Interpretation of the Data and its Relation to the Correct Dosage of the Load in the Session
  - 1.4.3. Recovery Quality Scale, Interpretation and Practical Application in the Session (TQR 0-10)
  - 1.4.4. As a Tool for Daily Practice
  - 1.4.5. Application
  - 1.4.6. Recommendations
- 1.5. Means for Strength Training
  - 1.5.1. Role of the Mean in Designing a Method
  - 1.5.2. Means at the Service of a Method and in Function of a Central Sporting Objective
  - 1.5.3. Types of Means
  - 1.5.4. Movement Patterns and Activations as a Central Axis for Media Selection and Method Implementation.
- 1.6. Building a Method
  - 1.6.1. Defining the Types of Exercises
    - 1.6.1.1. Cross-Connectors as a Guide to the Movement Target
  - 1.6.2. Exercise Evolution
    - 1.6.2.1. Modification of the Rotational Component and the Number of Supports According to the Plane of Motion
  - 1.6.3. Exercise Organization
    - 1.6.3.1. Relationship With Priority Horizontal and Vertical Movements (2.3 and 2.4)
- 1.7. Practical Implementation of a Method (Programming)
  - 1.7.1. Logical Implementation of the Plan
  - 1.7.2. Implementation of a Group Session
  - 1.7.3. Individual Programming in a Group Context
  - 1.7.4. Strength in Context Applied to the Game
  - 1.7.5. Periodization Proposal
- 1.8. ITU 1 (Integrating Thematic Unit)
  - 1.8.1. Training Construction for Functional and Structural Adaptations and Recruitment Order
  - 1.8.2. Constructing a Training Monitoring and/or Assessment System
  - 1.8.3. Movement-Based Training Construction for the Implementation of Fundamentals, Means and External and Internal Load Control
- 1.9. ITU 2 (Integrating Thematic Unit)
  - 1.9.1. Construction of a Group Training Session
  - 1.9.2. Construction of a Group Training Session in Context Applied to the Game
  - 1.9.3. Construction of a Periodization of Analytical and Specific Loads



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

# 05 Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: **Re-learning**.

This teaching system is used 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 Re-learning, 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

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

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*With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world”*



*Our University is the first in the world to combine Harvard Business School case studies with a 100%-online learning system based on repetition.*



### A learning method that is different and innovative.

This Sports Science program at TECH Technological University is an intensive program that prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH you will use Harvard case studies, with which we have a strategic agreement that allows us to offer you material from the best university in the world.



*We are the only online university that offers Harvard materials as teaching materials on its courses"*

The case method is the most widely used learning system by 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.

In a given situation, what would you do? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, you will be presented with multiple real cases. You will have to combine all your knowledge, and research, argue, and defend your ideas and decisions.

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

## Re-Learning Methodology

Our University is the first in the world to combine Harvard University case studies with a 100%-online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance Harvard case studies with the best 100% online teaching method: Re-learning.

*In 2019 we obtained the best learning results of all Spanish-language 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 Re-learning.

Our University is the only one in Spanish-speaking countries licensed to incorporate 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 Spanish online university indicators.





In our program, learning is not a linear process, but rather a spiral (we 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.

*Re-learning 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 to success.*

Based on the latest evidence in neuroscience, not only do we know how to organize information, ideas, images, memories, but we also know that the place and context where we have learned something is crucial for us to be able to remember it and store it in the hippocampus, and 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.



In this program you will have access to the best educational material, prepared with you 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.

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.



### 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 our future difficult decisions.



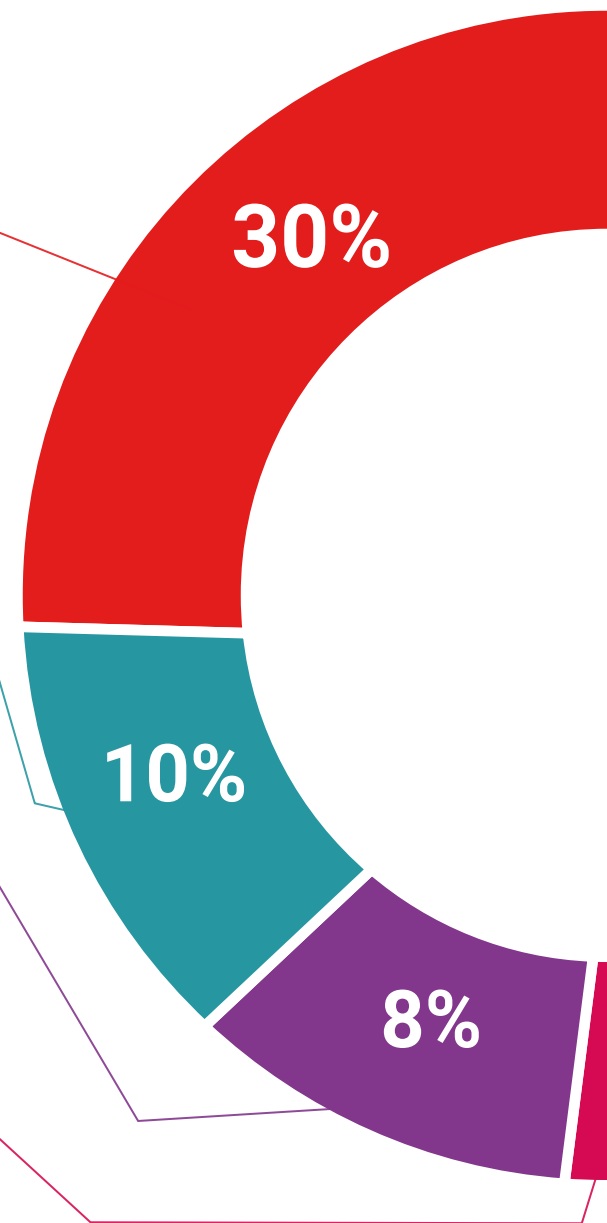
### Practising Skills and Abilities

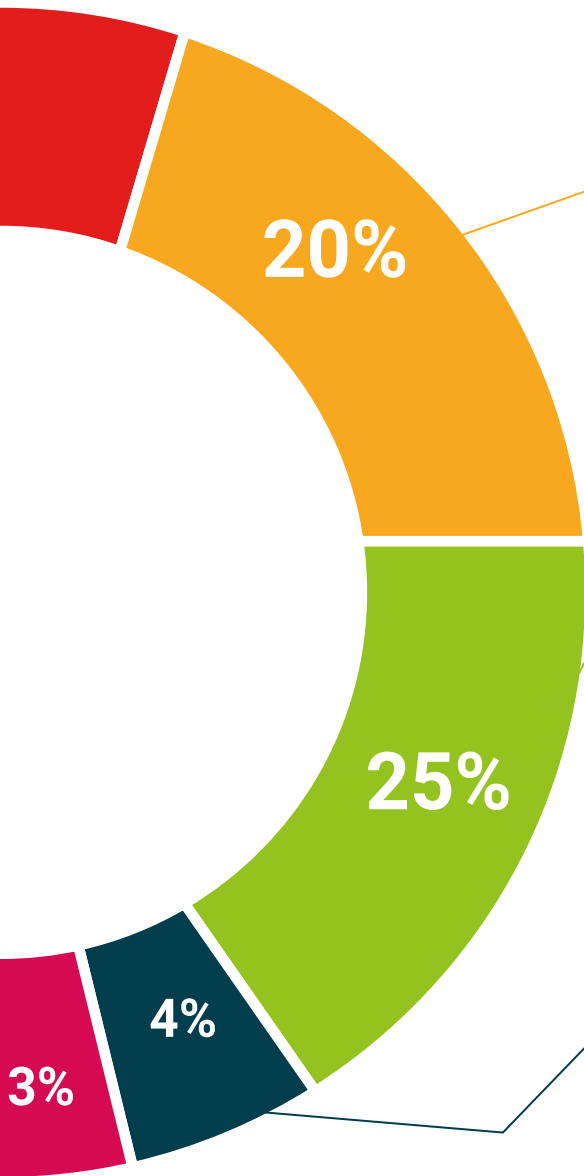
You will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### Additional Reading

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





#### Case Studies

You will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management specialists in Latin America.



#### 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 unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Testing & Re-testing

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



# 06 Certificate

This Postgraduate Certificate in Strength Training in Situational Sports guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH - Technological University.





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

This **Postgraduate Certificate in Strength Training in Situational Sports** contains the most complete and up-to-date scientific 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**.

This diploma contributes in a relevant way to the development of the continuing education of the professional and provides a high university curricular value to their training, and is 100% valid in all public examinations, professional career and labor exchanges of any Spanish Autonomous Community.

Title: **Postgraduate Certificate in Strength Training in Situational Sports**

Official Number of Hours: **150**

**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.

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

**tech** technological  
university

## Postgraduate Certificate

Strength Training  
in Situational Sports

- » Modality: online
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- » Dedication: 16h/week
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# Postgraduate Certificate Strength Training in Situational Sports

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