

Postgraduate Certificate

Sports Performance Assessment in Strength Training

Endorsed by the NBA





Postgraduate Certificate

Sports Performance Assessment in Strength Training

Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

6 ECTS Credits

Teaching Hours: 150 hours.

Website: www.techtitute.com/us/sports-science/postgraduate-certificate/sports-performance-assessment-strength-training

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01

Introduction

Any strength training process must necessarily be accompanied by a periodized strategy of neuromuscular evaluation that allows us to provide objective data about the subject's response (performance fitness effect), as well as the proposed method for achieving our goals.

With this intensive training the student will obtain the necessary management, from the theoretical foundation and practical management, of most of the tests and evaluation protocols proposed in the most current bibliography, in order to apply them according to specific requirements and professional performance field.





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This 100% online course 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.

Information regarding tests to objectify neuromuscular performance has always been proposed by recognized specialists in the field of strength training and study. In this sense, countless scientific publications, as well as trainers in the field of practice, propose a wide variety of tests for the assessment and control of this capacity.

Both realities, the need to assess the trained subject, as well as the impact or transfer (+ or -) of the methodology on his or her performance capacity, make it essential to have a strict knowledge and a deep understanding of each of the possible proposals presented in the literature and applicable to the field of practice.

The student of this Postgraduate Certificate will have a differentiating training 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 Postgraduate Certificate in Sports Performance Assessment in Strength Training has made a careful selection of each of the topics of this training 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 Postgraduate Certificate 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 Sports Assessment of Performance in Strength Training** 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 Postgraduate Certificate 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”

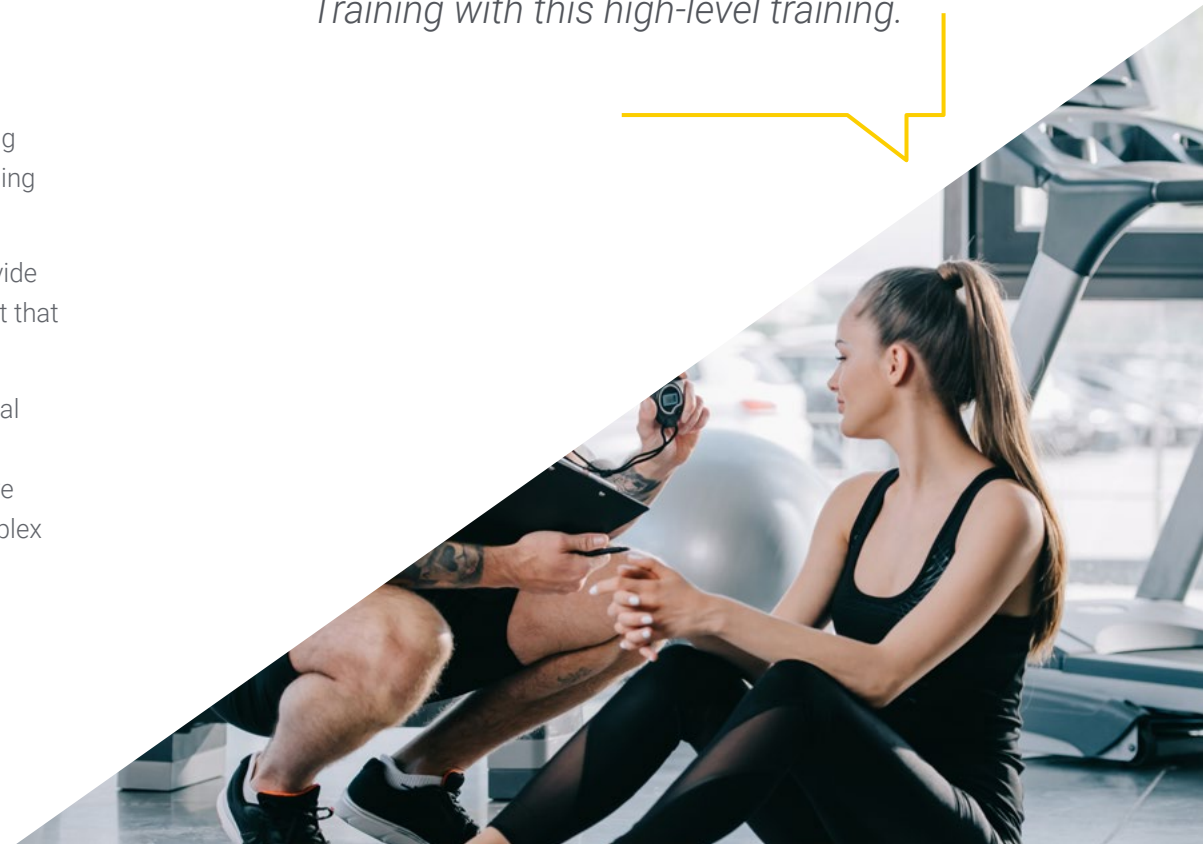
The teaching staff includes professionals from the field of sports science, who bring their experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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

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 Sports Performance Assessment in Strength Training 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 this Postgraduate Certificate in Sports Performance Assessment in Strength Training.



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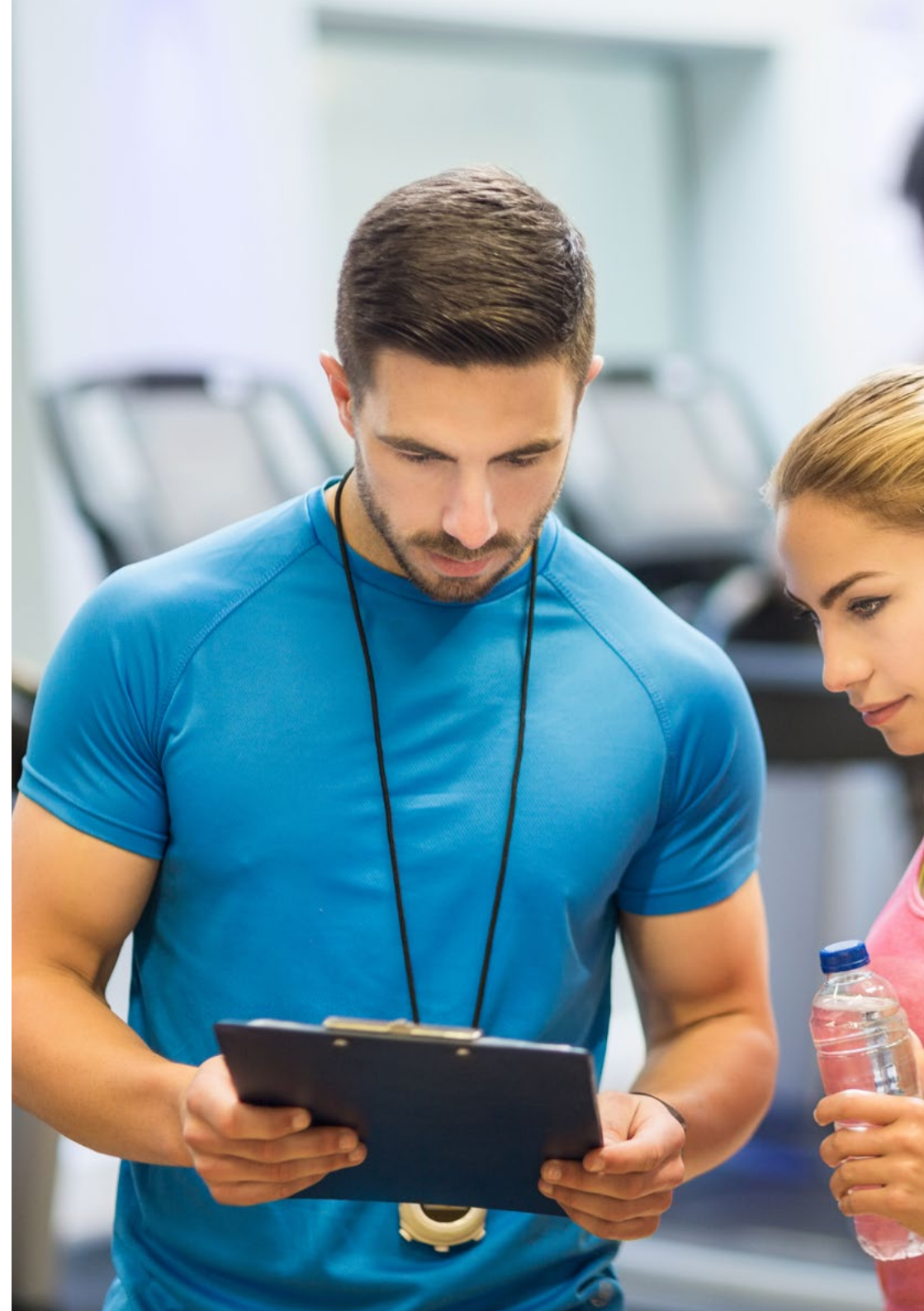
Our goal is to achieve academic excellence and help you achieve professional success.

Don't hesitate any longer and join us”



General Objectives

- ◆ 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

- ◆ Specialize in the different types of assessment and their applicability to the field of practice
- ◆ Select the most appropriate tests for your specific needs
- ◆ Correctly and safely administer the protocols of the different tests and the interpretation of the data collected
- ◆ Delve into and apply different types of technologies currently used in the field of assessment, in the field of health and fitness performance at any level of demand



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. For this reason, they have developed this Postgraduate Certificate with recent updates on the subject that will allow you to train and increase your skills in this sector.





“

*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. Masse, Juan

- ◆ Degree in Physical Education
- ◆ Director of the Athlos study group
- ◆ Physical trainer for several professional soccer teams in South America, experienced teacher.



04

Structure and Content

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





“

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

Module 1. Assessing Sports Performance in Strength Training

- 1.1. Assessment
 - 1.1.1. General Concepts on Assessment, Test and Measuring
 - 1.1.2. Test Characteristics
 - 1.1.3. Types of Tests
 - 1.1.4. Assessment Objectives
- 1.2. Neuromuscular Technology and Assessments
 - 1.2.1. Contact Mat
 - 1.2.2. Strength Platforms
 - 1.2.3. Load Cell
 - 1.2.4. Accelerometers
 - 1.2.5. Position Transducers
 - 1.2.6. Cellular Applications for Neuromuscular Evaluation
- 1.3. Submaximal Repetition Test
 - 1.3.1. Protocol for its Assessment
 - 1.3.2. Validated Estimation Formulas for the Different Training Exercises
 - 1.3.3. Mechanical and Internal Load Responses During a Submaximal Repetition Test
- 1.4. Progressive Incremental Maximal Test (TPI_{max})
 - 1.4.1. Naclerio and Figueroa Protocol 2004
 - 1.4.2. Mechanical (Linear Encoder) and Internal Load (PSE) Responses During a Max TPI.
 - 1.4.3. Determining the Optimal Zone for Power Training
- 1.5. Horizontal Jump Test
 - 1.5.1. Assessmen Without Using Technology
 - 1.5.2. Assessment Using Technology (Horizontal Encoder and Force Platform).
- 1.6. Simple Vertical Jump Test
 - 1.6.1. Squat Jump (SJ) Assessment
 - 1.6.2. Countermovement Jump (CMJ) Assessment
 - 1.6.3. Assessment of an Abalakov Salto ABK
 - 1.6.4. Drop Jump (DJ) Assessment
- 1.7. Rebound Jump Test





- 1.7.1. 5-second Repeated Jump Test
- 1.7.2. 15-second Repeated Jump Test
- 1.7.3. 30-second Repeated Jump Test
- 1.7.4. Fast Strength Endurance Index (Bosco)
- 1.7.5. Effort Exercise Rate in the Rebound Jump Test
- 1.8. Mechanical responses (Strength, Power and Speed/Time) During Single and Repeated Jumps Tests
 - 1.8.1. Strength/Time in Simple and Repeated Jumps
 - 1.8.2. Speed/Time in Single and Repeated Jumps
 - 1.8.3. Power/Time in Simple and Repeated Jumps
- 1.9. Strength/Speed Profiles in Horizontal Vectors
 - 1.9.1. Theoretical Basis of an S/S Profile
 - 1.9.2. Morin and Samozino Assessment Protocols
 - 1.9.3. Practical Applications
 - 1.9.4. Contact Carpet, Linear Encoder and Force Platform Evaluation of Forces.
- 1.10. Strength/Speed Profiles in Vertical Vectors
 - 1.10.1. Theoretical Basis of an S/S Profile
 - 1.10.2. Morin and Samozino Assessment Protocols
 - 1.10.3. Practical Applications
 - 1.10.4. Contact Carpet, Linear Encoder and Force Platform Evaluation of Forces.
- 1.11. Isometric Tests
 - 1.11.1. McCall Test
 - 1.11.1.1. Evaluation Protocol and Values Recorded With a Force Platform
 - 1.11.2. Mid-Thigh Pull Test
 - 1.11.2.1. Evaluation Protocol and Values Recorded With a Force Platform



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

05 Methodology

This training provides you with a different way of learning. Our methodology is developed through a cyclical way of learning: *relearning*. This teaching system, from Harvard University, is used in the most prestigious medical schools in the world and has been considered one of the most effective by major publications such as the *New England Journal of Medicine*.





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Relearning, a system from Harvard University 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.

“

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. The main objective is to promote your personal and professional growth. For this purpose, we rely on the case studies of Harvard Business School, with which we have a strategic agreement that allows us to use the materials used in the most prestigious university in the world: HARVARD.



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

The case method has been the most widely used learning system among the world's leading business schools for as long as they have existed. 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 16 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 for 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

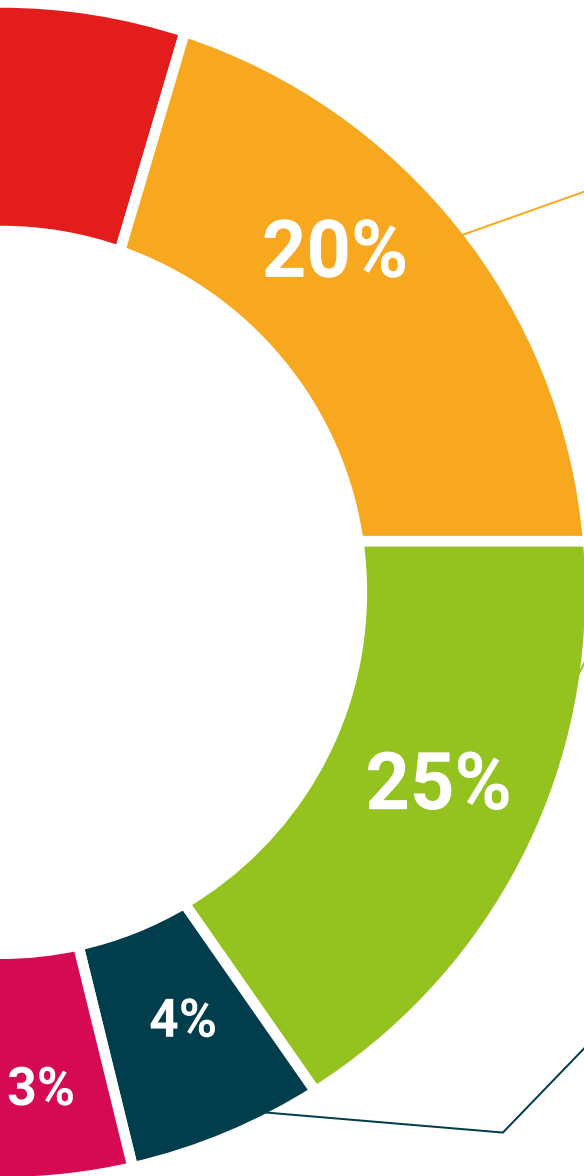
You will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



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 training system for presenting multimedia content 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 Sports Performance Assessment in Strength Training 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 training and receive your university degree without the hassle of travel and cumbersome procedures"

This **Postgraduate Certificate in Sports Performance Assessment in Strength Training** 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 Sports Performance Assessment in Strength Training**

ECTS: **6**

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.

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

tech universidad
tecnológica

**Postgraduate
Certificate**

Sports Performance
Assessment in Strength
Training

Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

6 ECTS Credits

Teaching Hours: 150 hours.

Postgraduate Certificate

Sports Performance Assessment in Strength Training

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tech technological
university