Postgraduate Certificate

Power Cycling Training

Endorsed by the NBA

tech technological university

tech technological university

Postgraduate Certificate

Power Cycling Training

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

Website: **www.techtitute.com/in/sports-science/postgraduate-certificate/power-cycling-training**

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01

Introduction

Power cycling training is enjoying tremendous popularity today. Central to it is the principle of controlled training load, which the trainer will adjust for each athlete according to his individual goals and capabilities. Since training with power meters has become one of the great assets of elite cyclists, a specialization in this area is of interest. And with TECH they will find it with the most updated vision on this area, going in depth about the concept of power, the Functional Threshold of Power as a reference value or the power profile. All this and more will be available to the student in a 100% online way.

An essential Diploma to deepen in the keys to train with power meters"

Although there are still some old school cyclists who prefer to use their own sensations as a reference, there is no doubt that power training has gained a lot of importance, being one of the keys to the winners of the great cycling events. With the potentiometer installed on the bike, the athlete will be guided by individual thresholds.
In fact, the Functional Power Threshold (FTP) is positioned as the reference value par excellence.

However, it is clear that it is one thing to install the potentiometer on the bike and quite another to work properly with it. This is the reason for this Diploma, which is a valuable opportunity for cyclists to update their training by watts with all the guarantees and, thus, increase their performance.

Thus, sports professionals will analyze in detail the operation of the power meter, determining its different types. They will then go on to establish methods of estimating the Functional Power Threshold and examine its application to training. Focusing also on power profiling or performance monitoring, students will develop in line with the latest advances in this field.

To benefit from this extensive specialization, all they will need is an Internet connection. This will become the passport to a large digital library of interactive lessons and resources on the field which will be of enormous value to you in your sporting activity.

This **Posgraduate Certificate in Power Cycling Training** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by rendering experts
- The graphic, schematic and practical contents of the program provide Sports and practical information on those disciplines that are essential for professional practice
- 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

If you wanted to analyze the operation of power meters and their different types, this is the perfect qualification"

Thanks to this Diploma you will have all the keys to monitor your performance, examining the monitoring of physiological parameters or MMP monitoring"

You will cover all the essential metrics in this area, such as FRC, Pmax or CP.

This is a comprehensive diploma course that will take you deep into the estimation software.

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

02

Objectives

As this Postgraduate Certificate is designed, the objectives of the program revolve around the high-level specialization of the cyclist in a training modality that will lead him to reach new heights. To do this, with the teaching team, the student will deepen in the latest strategies and methodologies to monitor and progressively increase their performance. In addition, their academic progress will be boosted by the technological innovations that TECH applies in the Virtual Campus.

Achieving the objectives of the degree will mean having a full mastery of performance modeling"

General Objectives

- Understand the performance factors of sport and thus learn to assess the specific needs of each athlete
- To be able to plan, periodize and develop training programs for cyclists, in short, to enable students to exercise the coaching profession
- Acquire specific knowledge related to the biomechanics of cycling
- Understand the operation of new applications used in the quantification of loads and training prescription
- Understand the benefits of strength training and be able to apply them in concurrent training
- Acquire a specialization in nutrition oriented to cycling
- Understand the functioning of cycling structures, as well as the modalities and categories of competitions

Specific Objectives

- To acquire knowledge about power training
- Address the different metrics needed to prescribe and quantify through power
- Learn about performance modeling

Your sports goals will be much closer thanks to the advances in your training that you will apply with this program"

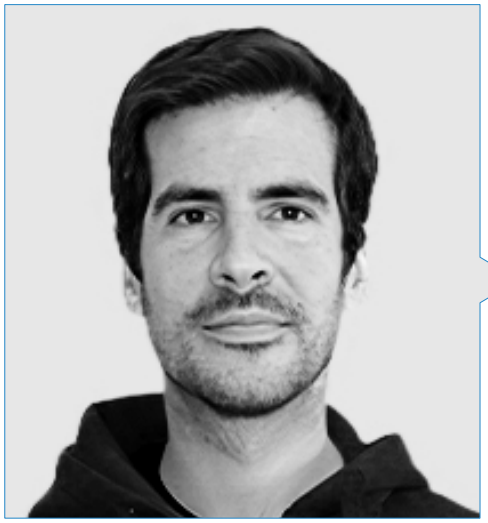
03

Course

The elite education promoted by TECH in each of its degrees reaches its maximum expression in this program thanks to the incorporation of prestigious experts to the teaching staff. In this line, the student's academic progress will be reinforced by the supervision of professors with extensive experience in cyclic sports training. In fact, they have held positions of responsibility in boosting the performance of national cycling teams, so their know-how will be of great value to the student.

Experts who have excelled in enhancing the performance of elite athletes in cyclic disciplines will be at your disposal for any questions"

Management



Mr. Sola, Javier

- CEO of Training4ll
- Coach of the WT UAE team
- Head of Performance Massi Tactic UCI Women's Team
- Biomechanics Area Specialist for Jumbo Visma UCI UCI WT
- WKO advisor for World Tour cycling teams
- Trainer at Coaches 4 Coaches
- Associate Professor at Loyola University
- Graduate in Physical Activity and Sport Sciences from the University of Seville
- Postgraduate Certificate in High Performance Cycling Sports from the Murcia University.
- Level III Sports Director
- Numerous Olympic medals and medals in European Championships, World Cups and National Championships.

Professors

Mr. Moreno Morillo, Aner

- Kuwait National Cycling Team Performance Manager
- Assistant of Euskaltel-Euskadi ProConti Team
- National Sports Director Level III
- Graduate in Physical Activity and Sport Sciences from the Isabel I University.
- Master's Degree in CAFD Research from the European University.
- Master's Degree in High Performance Cycling Sports from the Murcia University.

Mr. Heijboer, Mathieu

- Performance manager of the WT Jumbo-Visma team.
- Coach of high level cyclists
- Former professional cyclist
- Degree in Physical Activity and Sport Sciences (CAFD)

04

Structure and Content

In this degree, TECH has condensed 150 hours of innovative content on power cycling training into 6 weeks of specialization, combining educational innovation and up-to-date knowledge. In connection with this, students will have 24-hour access to the university's Virtual Campus, where an extensive catalog of dynamic resources presented in formats such as videos, interactive diagrams or analysis cases will be hosted.

A syllabus that incorporates everything you need to know about the Power Management Chart"

Module 1. Power Cycling Training

1.1. What is power?
- 1.1.1. Definition
- 1.1.2. What is a W
- 1.1.3. What is a Joule

1.2. Power meters
- 1.2.1. Meter operation
- 1.2.2. Types
- 1.2.3. Dual
- 1.2.4. Psuedodual

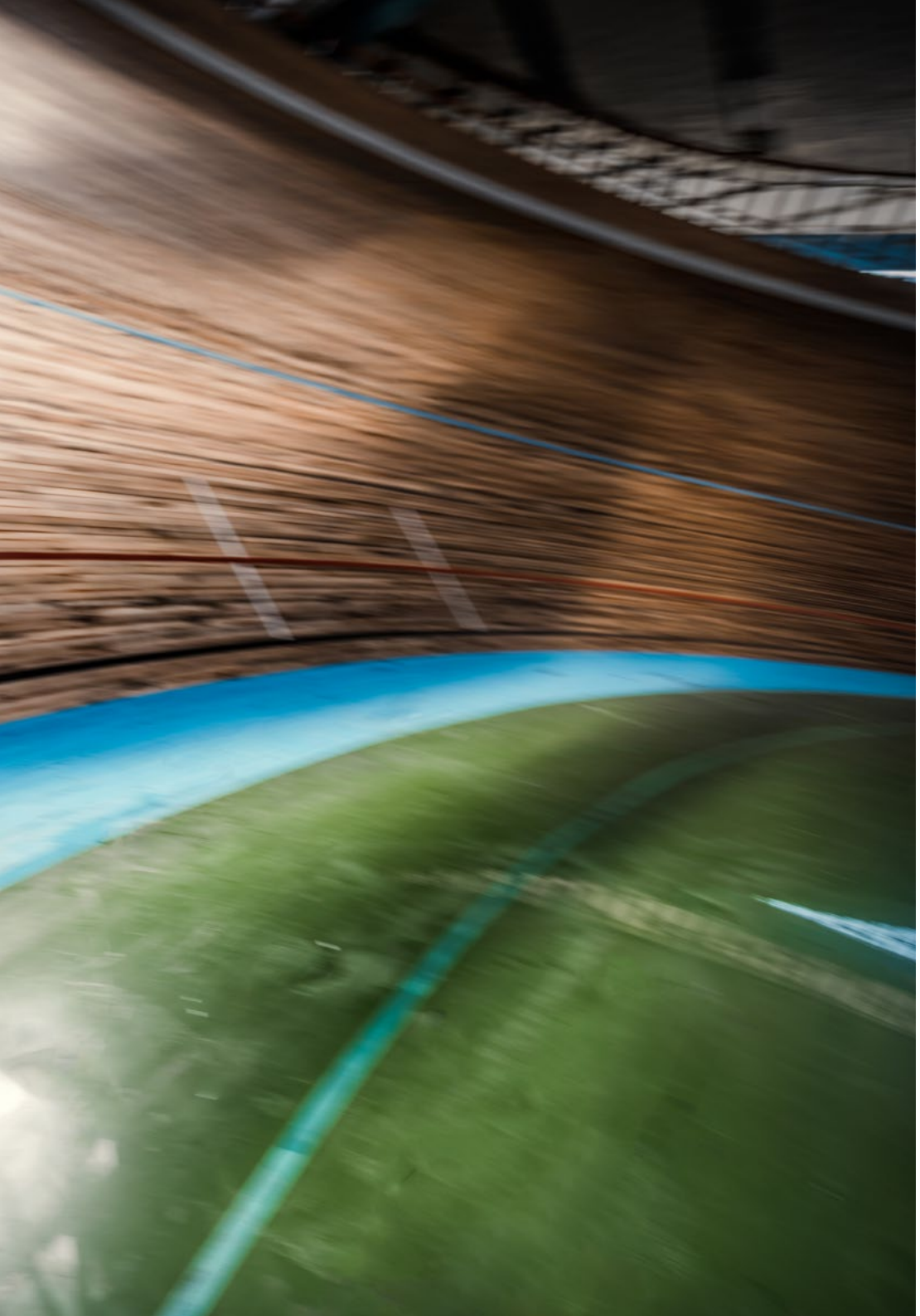
1.3. What is FTP?
- 1.3.1. Definition
- 1.3.2. Estimation Methods
- 1.3.3. Application to training

1.4. Determination of strengths
- 1.4.1. Regression Analysis
- 1.4.2. Data Analysis

1.5. Power profile
- 1.5.1. Classical power profile
- 1.5.2. Advanced power profile
- 1.5.3. Power profile test

1.6. Performance Monitoring
- 1.6.1. What is performance?
- 1.6.2. MMP monitoring
- 1.6.3. Monitoring of physiological parameters

1.7. Power Management Chart (PMC)
- 1.7.1. External load monitoring
- 1.7.2. Internal load monitoring
- 1.7.3. Integration of all systems



1.8. Metrics
- 1.8.1. CP
- 1.8.2. FRC/w'
- 1.8.3. Pmax
- 1.8.4. *Stamina/Durability*

1.9. Fatigue resistance
- 1.9.1. Definition
- 1.9.2. Based on KJ
- 1.9.3. Based on KJ/kg

1.10. *Pacing*
- 1.10.1. Definition
- 1.10.2. Normative values for time trials
- 1.10.3. Estimation software

A program whose syllabus will make you stand out thanks to the most updated knowledge on the power cycling training market. Access it with your tablet or PC!"

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.

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

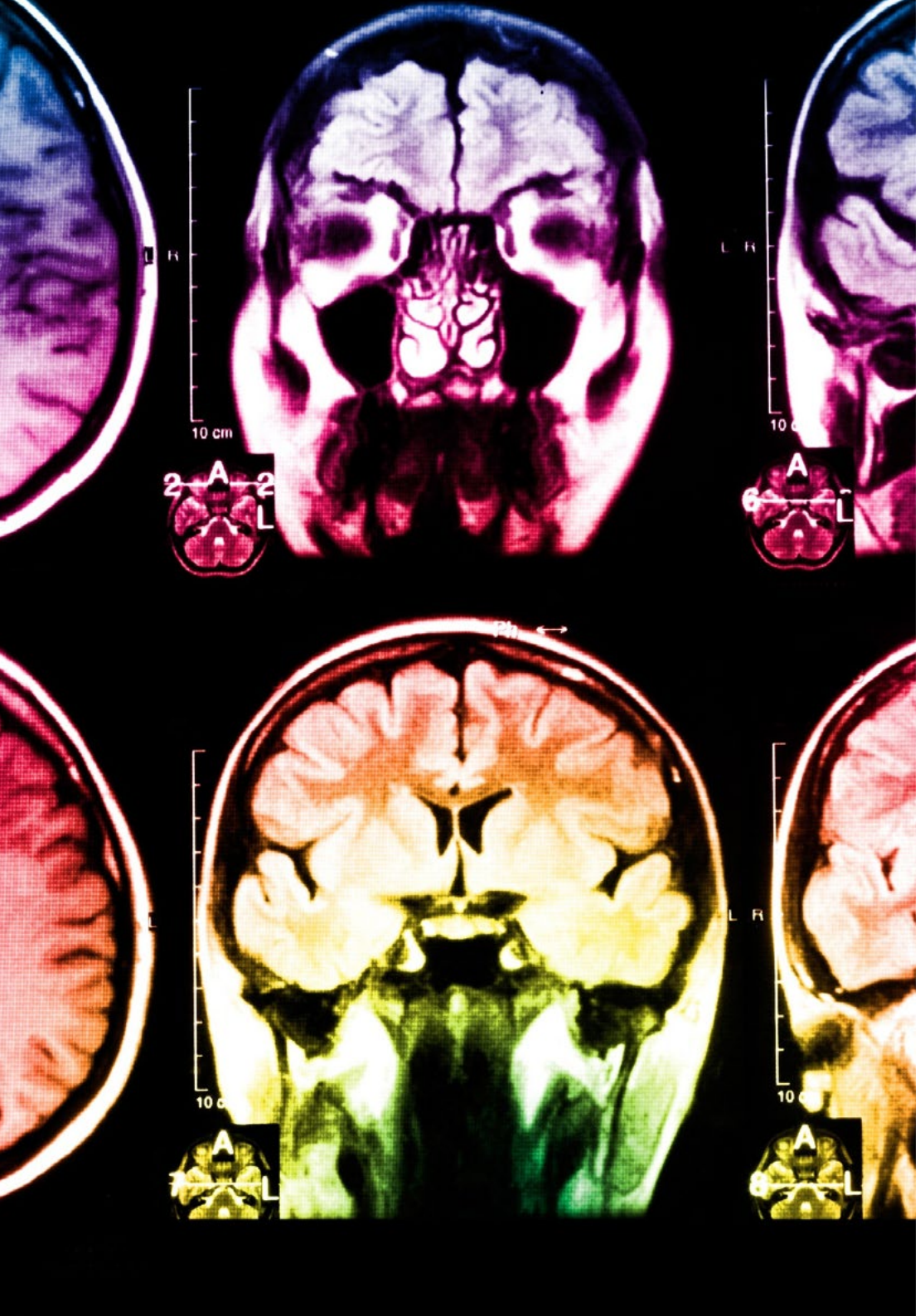
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

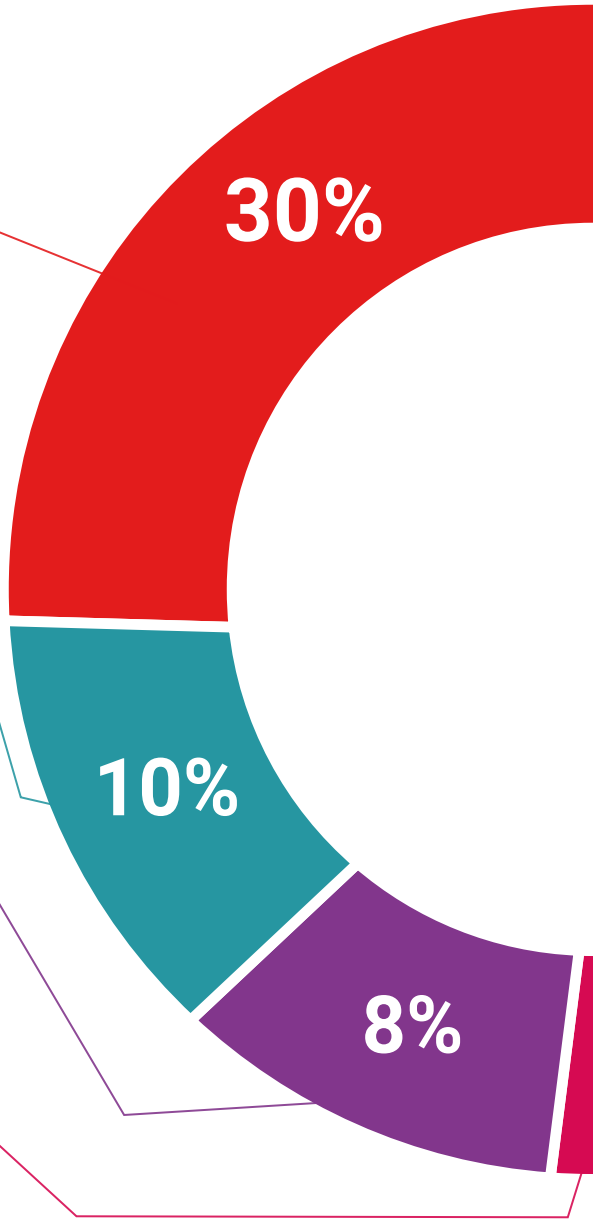
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

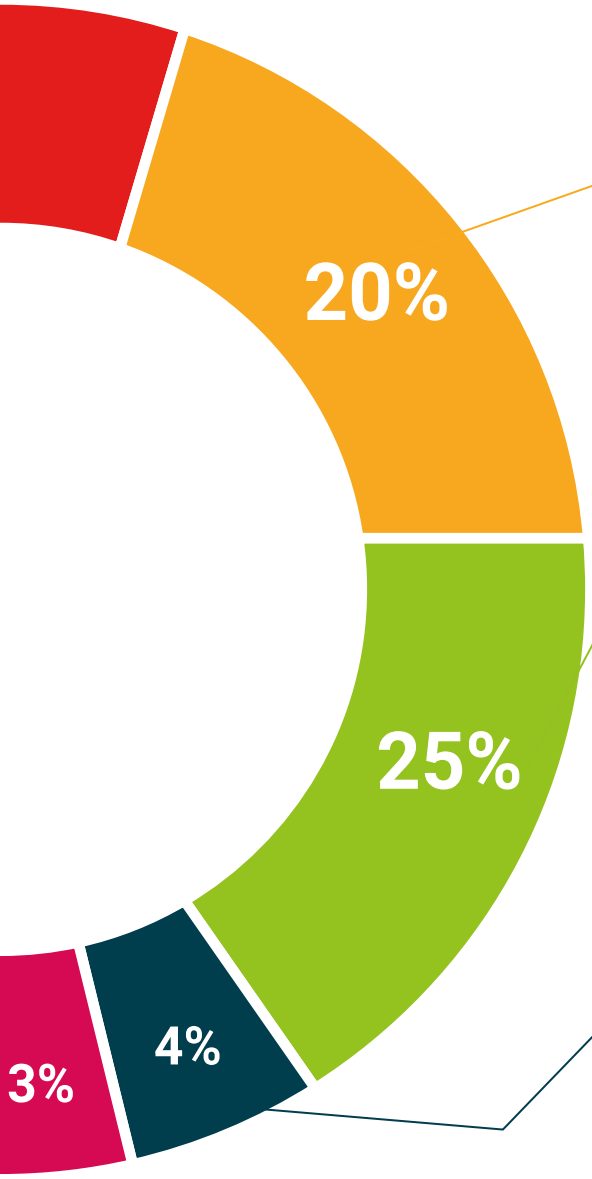
Practising Skills and Abilities

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 Power Cycling Training guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Power Cycling Training** contains the most complete and up-to-date scientific 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 certificate 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 Power Cycling Training**

Official Nº of Hours: **150 h.**

Endorsed by the NBA


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Power Cycling Training

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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