

Postgraduate Certificate

Special Situations in Cycling Training

Endorsed by the NBA



tech technological
university





Postgraduate Certificate Special Situations in 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/us/sports-science/postgraduate-certificate/special-situations-cycling-training



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01

Introduction

When it comes to racing, cyclists are at the mercy of the weather and environmental conditions of their surroundings. This becomes relevant when these become hostile, such as in cases of high temperatures or high altitude roads. Undoubtedly, these are factors that significantly condition their performance, so it is essential that sports professionals are updated on these challenges to address them with greater guarantees. This is the reason for the creation of this program, through which students will learn more about the physiological responses to adverse situations. In this sense, we will analyze how to act in cases of jet lag, hypoxia, atmospheric contamination... In addition, this complete program will be developed from any location and with outstanding experts at the student's disposal.





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An essential Postgraduate Certificate if you want to face with guarantees the adverse scenarios during the cycling practice”

Adequate preparation of cyclists for the special situations they face is a particularly relevant aspect. This can be done by taking into account the specificities of the environment in which the sport is practiced, by planning specific training plans or by modifying their diet. There is no doubt, therefore, that in order to excel in cycling, it is an indispensable requirement to adapt to the changing conditions at the time, being relevant to monitor the symptoms or to make informed decisions.

In order for cyclists to be able to face these challenging scenarios in line with the latest developments, TECH has designed this valuable specialization. With it, sports professionals will cover a wide range of adverse situations that threaten their performance and physical health, such as training in heat or at high altitude, as well as cases of hypoxia or Jet Lag. Thus, they will focus on the design of strategies adapted to each of these challenges, which require them to give the best of themselves.

This great updating opportunity is offered in a convenient online format where the student will have all the facilities he/she can imagine. The only requirement on your part will be a device with an Internet connection, which will give you access to a very extensive online catalog of resources on this subject to consult without any type of restriction. It will also draw on the experience of renowned cycling experts, which will add even more value to the program.

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

- ◆ The development of case studies presented by experts in Special Situations in Cycling Training
- ◆ The graphic, schematic and eminently practical contents of the book provide sporting 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



Looking to analyze physiological responses to heat training and their adaptation protocols? Well, this is your program!"

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This is your opportunity to benefit from an innovative methodology with which, through repetition, you will internalize all the key concepts of Special Situations in Cycling Training"

You will become an expert in cases of hypoxia during cycling, acting with guarantees to safeguard your health.

Thanks to this Postgraduate Certificate, you will define the most appropriate adaptation strategies when competing in environments with atmospheric pollution.

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

TECH has designed a program that aims to update the student on the most effective coping strategies to combat a wide variety of adverse situations. These are likely to occur during the sport depending on the conditions of the environment, which is why the university has opted for a global approach that allows the cyclist to adapt with guarantees. Thus, your performance will not diminish despite your activity in hot and polluted environments or despite the concurrence of constraints such as jet lag.



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*Achieving the objectives of the program
will prevent potential performance
losses that threaten the achievement
of the goals you had set for yourself"*



General Objectives

- ◆ Understand the performance factors of sport and, therefore, 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 profession of coach
- ◆ Acquire specific knowledge related to the biomechanics of cycling
- ◆ Understand the operation of new applications used in load quantification 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

- Learn to differentiate between different adverse situations that affect performance
- Develop and apply strategies to optimize performance in adverse situations

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This Postgraduate Certificate is a guarantee to address the nutritional alterations derived from a change of culture due to competition"

03

Course Management

In order to offer an elite specialization to graduates, TECH has carefully selected a first-rate faculty for this program. They are true cycling eminences with a long professional career, backed by numerous Olympic medals and who have catapulted the performance of other elite athletes. Thus, the student who enrolls in this academic program will be able to use his experience and practice in the current context to be updated in the most frequent Special Situations in Cycling Training and to face them in an efficient way.



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Students will draw on the experience of experts who have provided valuable sports and nutritional advice to elite cyclists"

Management



Mr. Sola, Javier

- ♦ CEO of Training4ll
- ♦ WT UAE Team Coach
- ♦ Massi Tactic UCI Womens Team Performance Manager
- ♦ Specialist in the biomechanical area of Jumbo Visma UCI WT
- ♦ WKO advisor to World Tour cycling teams
- ♦ Trainer at Coaches4coaches
- ♦ Associate Professor at Loyola University
- ♦ Degree in Physical Activity and Sports Sciences from the University of Seville
- ♦ Postgraduate Degree in High Performance Cycling Sports from the University of Murcia
- ♦ Sports Director Level III
- ♦ Numerous Olympic medals and medals at European championships, World Cups and national championships

Professors

Mr. Celdrán, Raúl

- ♦ CEO of Natur Training System
- ♦ Burgos BH ProConti Team Nutrition Manager
- ♦ Performance manager of the professional MTB team Klimatizaza Team
- ♦ Trainer at Coaches4coaches
- ♦ Degree in Pharmacy from the University of Alcalá, Spain
- ♦ Master's Degree in Nutrition, Obesity and High Performance in Cyclic Sports from the University of Navarra

Mr. Iribarri, Jon

- ♦ CEO of Custom4us
- ♦ Biomechanics manager of the WT Jumbo Visma team
- ♦ Head of Biomechanics at Movistar Team
- ♦ UCI World Center Professor
- ♦ Degree in Physical Activity and Sports Sciences from the University of the Basque Country
- ♦ Professional Master's Degree in High Performance from Colorado State University, USA



04

Structure and Content

The syllabus of this Postgraduate Certificate will ensure a successful acquisition of competencies aimed at boosting the student's sports activity. With a duration of 150 hours and without the student having to adhere to a timetable, each and every one of the topics has been supervised by the experts on the teaching staff. Thus, they have the most comprehensive and updated vision that can be found in the market today in this area, which positions this program over others.



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Delve into the different methodologies used in high altitude training with the most avant-garde curriculum in the current academic panorama"

Module 1. Special cycling training situations

- 1.1. Heat
 - 1.1.1. Heat performance
 - 1.1.2. Responses to training and adaptation protocols
 - 1.1.3. Damp heat vs. dry heat
 - 1.1.4. Strategies to promote benefits
- 1.2. Altitude
 - 1.2.1. Performance and altitude
 - 1.2.2. Responders and non-responders
 - 1.2.3. Benefits of altitude
- 1.3. Train High-Live Low
 - 1.3.1. Definition
 - 1.3.2. Advantages
 - 1.3.3. Inconveniences
- 1.4. Live High-Train Low
 - 1.4.1. Definition
 - 1.4.2. Advantages
 - 1.4.3. Inconveniences
- 1.5. Live High- Compete High
 - 1.5.1. Definition
 - 1.5.2. Advantages
 - 1.5.3. Inconveniences
- 1.6. Hypoxia
 - 1.6.1. Definition
 - 1.6.2. Advantages
 - 1.6.3. Inconveniences
- 1.7. Intermittent hypoxia
 - 1.7.1. Definition
 - 1.7.2. Advantages
 - 1.7.3. Inconveniences



- 1.8. Atmospheric pollution
 - 1.8.1. Contamination and performance
 - 1.8.2. Adaptation Strategies
 - 1.8.3. Disadvantages of training
- 1.9. Jet lag and performance
 - 1.9.1. Jet lag and performance
 - 1.9.2. Adaptation Strategies
 - 1.9.3. Supplementation
- 1.10. Adaptability to nutritional changes
 - 1.10.1. Definition
 - 1.10.2. Loss of performance
 - 1.10.3. Supplementation

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You'll be able to access this agenda on an unlimited basis and examine points of interest such as the differences of wet and dry heat on cyclist performance"

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.

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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.

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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.



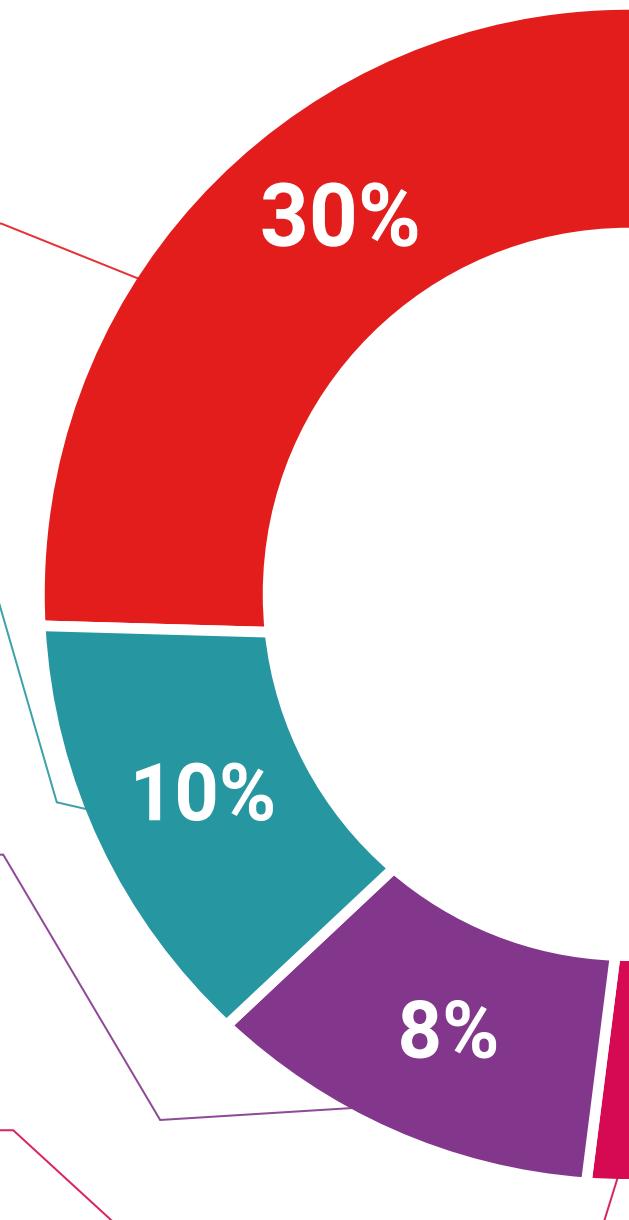
Practising Skills and Abilities

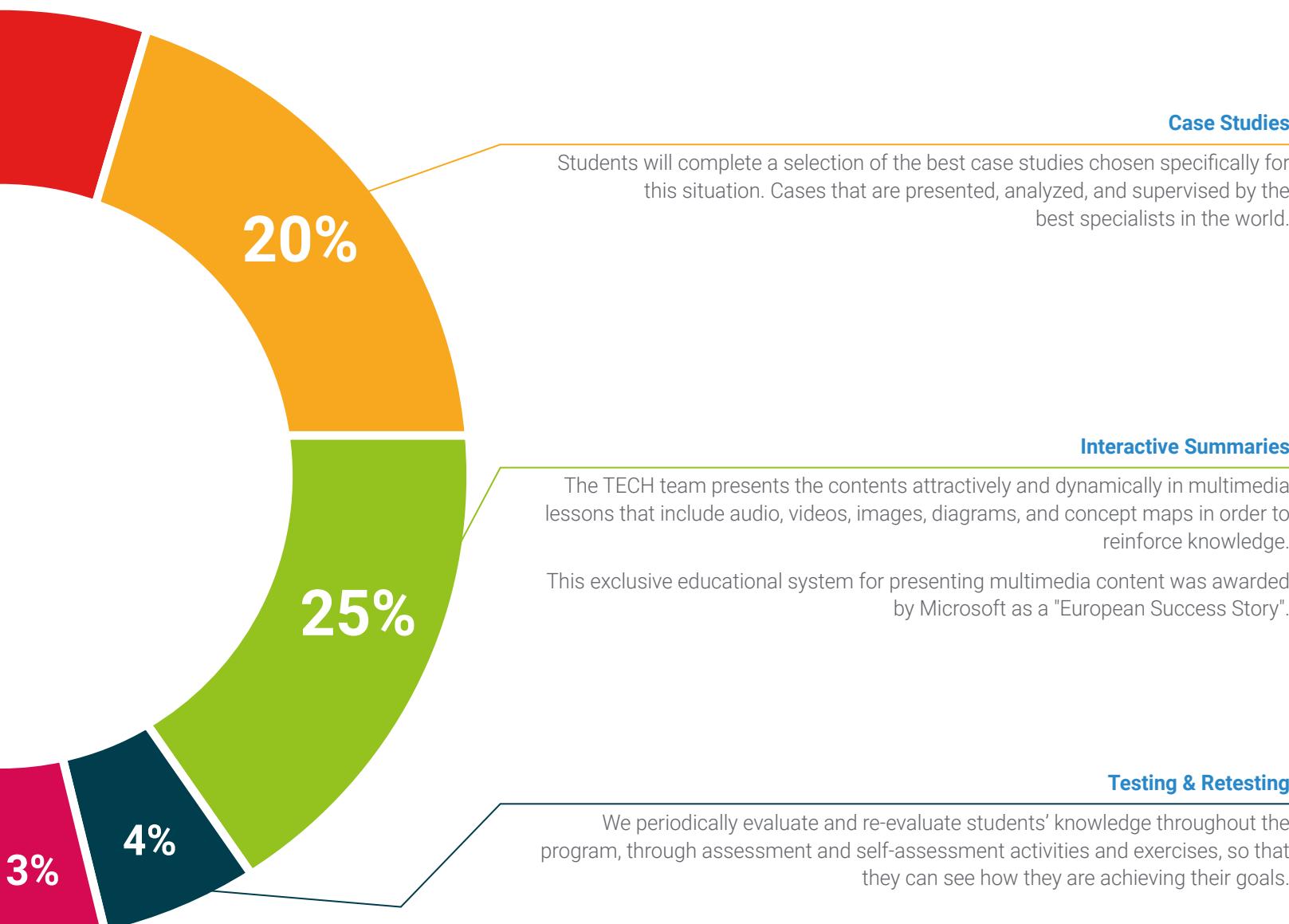
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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.





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Certificate

The Postgraduate Certificate in Special Situations in 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.



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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 Special Situations in Cycling 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 Special Situations in Cycling Training**

Official Nº of hours: **150 h.**



*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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