

Postgraduate Certificate

Special Situations in Cycling Training

Endorsed by the NBA



tech global
university



Postgraduate Certificate Special Situations in Cycling Training

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.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"

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.

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.



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.



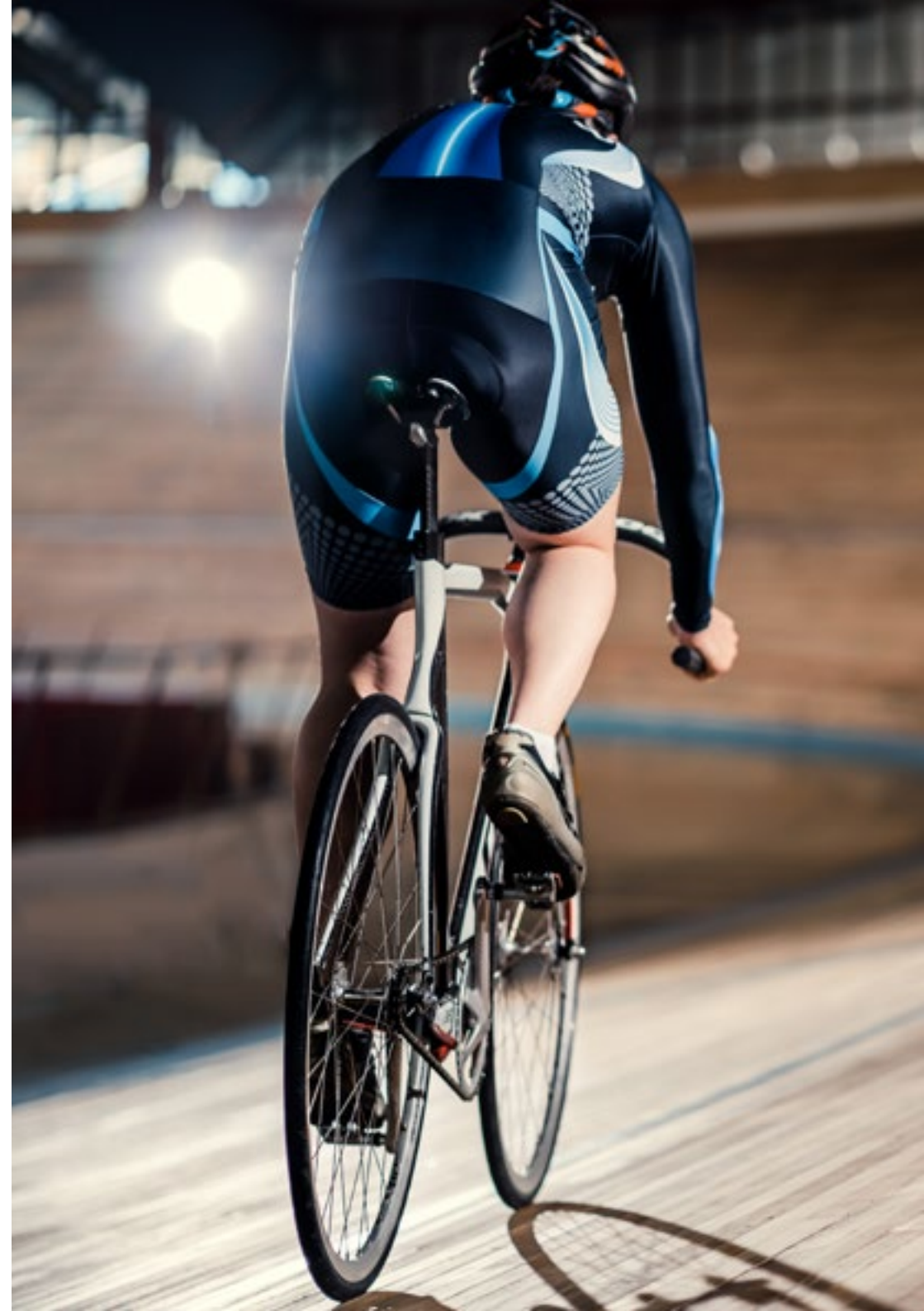
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*Achieving the objectives of the program
will prevent potential performance
losses that threaten the achievement
of the goals you had set for yourself"*



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



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. Iriberri, 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



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 Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

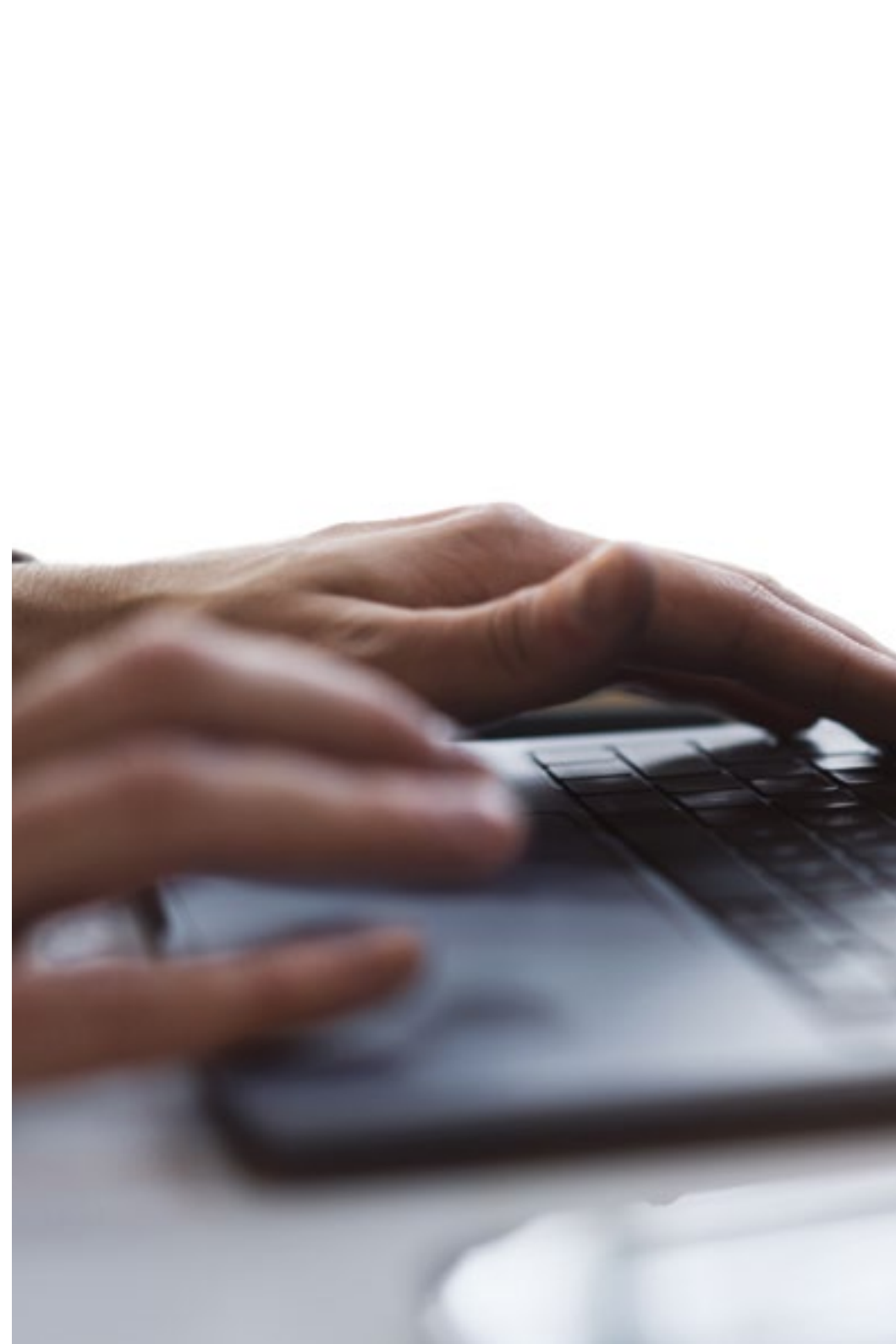
In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



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.

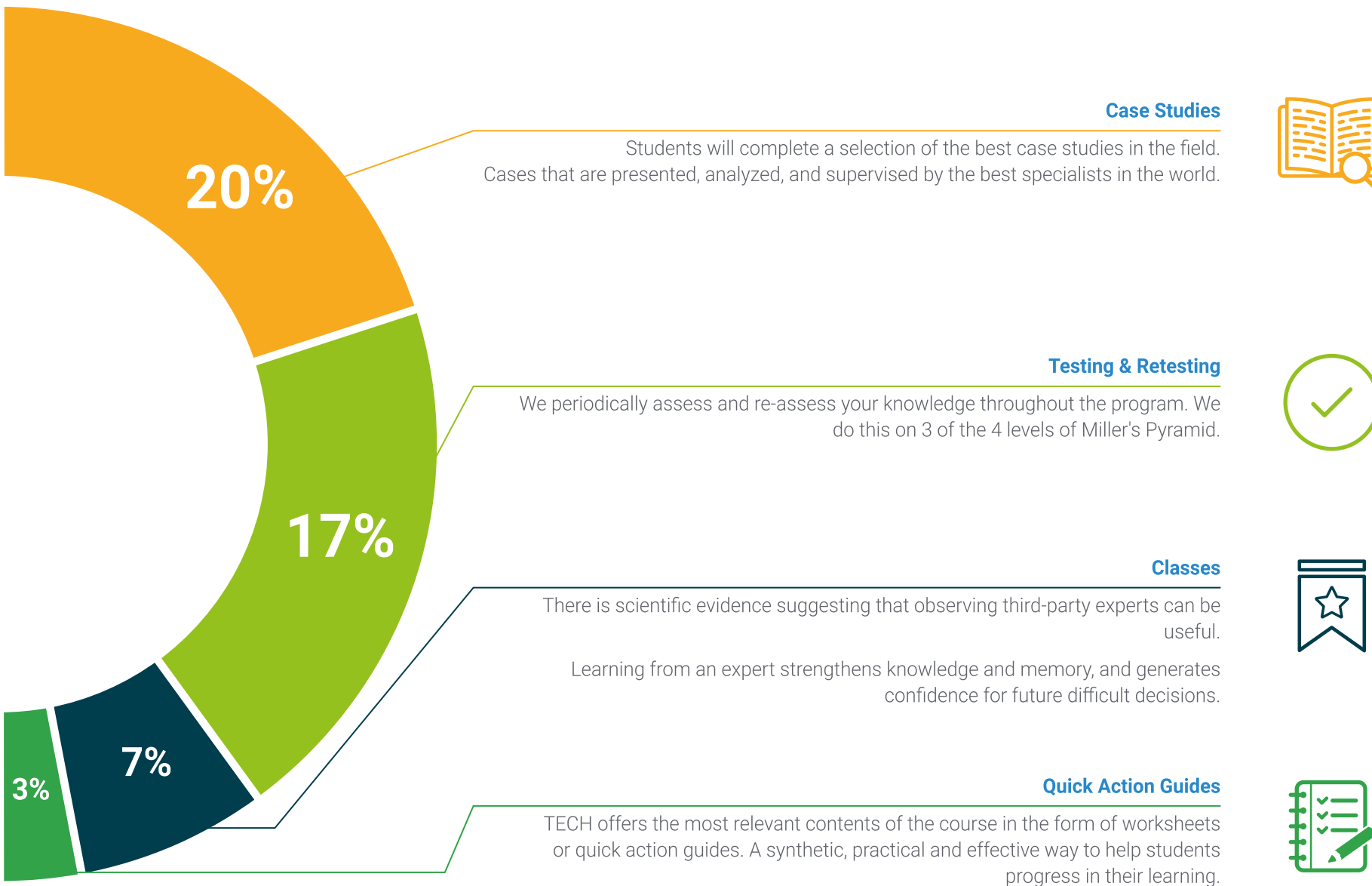
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





06 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 Global University.



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

This private qualification will allow you to obtain a **Postgraduate Certificate in Special Situations in Cycling Training** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Special Situations in Cycling Training**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

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