Postgraduate Diploma

Nutrition in Physical Activity and Aquatic Sports

Endorsed by the NBA

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Postgraduate Diploma

Nutrition in Physical Activity and Aquatic Sports

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Credits: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-nutrition-physical-activity-aquatic-sports

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01

Introduction

Elite sports and amateur sports practice can take place in very different situations, conditioning both the physiological conditions and the nutritional objective during sports practice. This Postgraduate Diploma in Nutrition in Physical Activity and Aquatic Sports was developed with the aim of qualifying professionals of the highest level as specialists within a multidisciplinary group to maximize sports performance and proper recovery.

Food and sport must go hand in hand, as it is essential that athletes follow a proper diet to help them improve their performance"

Aquatic Sports include a variety of sports disciplines (swimming, water polo, diving, synchronized swimming) with very different metabolic strength and technical demands, although they all share the peculiarity that the movement takes place in water. Athletes competing in Aquatic Sports face the constant challenge of arduous training and competition schedules in difficult and changing environmental conditions. One point to consider is the huge range of water temperatures to which swimmers and other aquatic athletes are often exposed (16-31°C for open water swimming), coupled with altered aquatic thermoregulatory responses compared to land-based athletes, can challenge the health, safety and performance of these athletes.

On the other hand, the search for improved sports performance is a common goal in all sports. Based on this goal, there is a group of sports that stand out because this sporting improvement must be coordinated with the search for a specific body weight (combat sports, weightlifting, powerlifting, bodybuilding modalities). Sports with weight categories seek to promote fairer and more interesting competitions, since the confrontation takes place between opponents of the same physical build and ability. However, in these sports there is a marked tendency to gain an advantage by trying to get into a lower weight category than the natural training weight and, thereby, compete with athletes of lower physical build and weight. In general, the athlete tries to reduce his body mass to the minimum possible.

Athletes sometimes perform quite aggressive protocols to reduce body weight and fall into a lower weight category. These practices are characterized by a strong restriction of food and fluid intake, leading to a state of glycogen depletion and hypohydration. In this context, a certain muscular catabolism (loss of muscle mass) could occur, which would compromise sports performance.

The program has multimedia content that helps you acquire the knowledge that is presented, elaborated with the latest educational technology. At the same time, it will allow the student a contextual and situated learning, within a simulated environment that provides education focused on solving real problems.

This **Postgraduate Diploma in Nutrition in Physical Activity and Aquatic Sports** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- The graphic, schematic and eminently practical content of the system provides the information essential for professional practice.
- Exercises where the self-assessment process can be carried out to improve learning.
- An algorithm-based interactive learning system, designed for decision making for patients with nutritional challenges.
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work.
- Content that is accessible from any fixed or portable device with an Internet connection.

Learn the most suitable diets for each type of athlete and you will be able to give more personalized advice"

This Postgraduate Diploma may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Nutrition in Physical Activity and Aquatic Sports, you will obtain a certificate endorsed by TECH Global University"

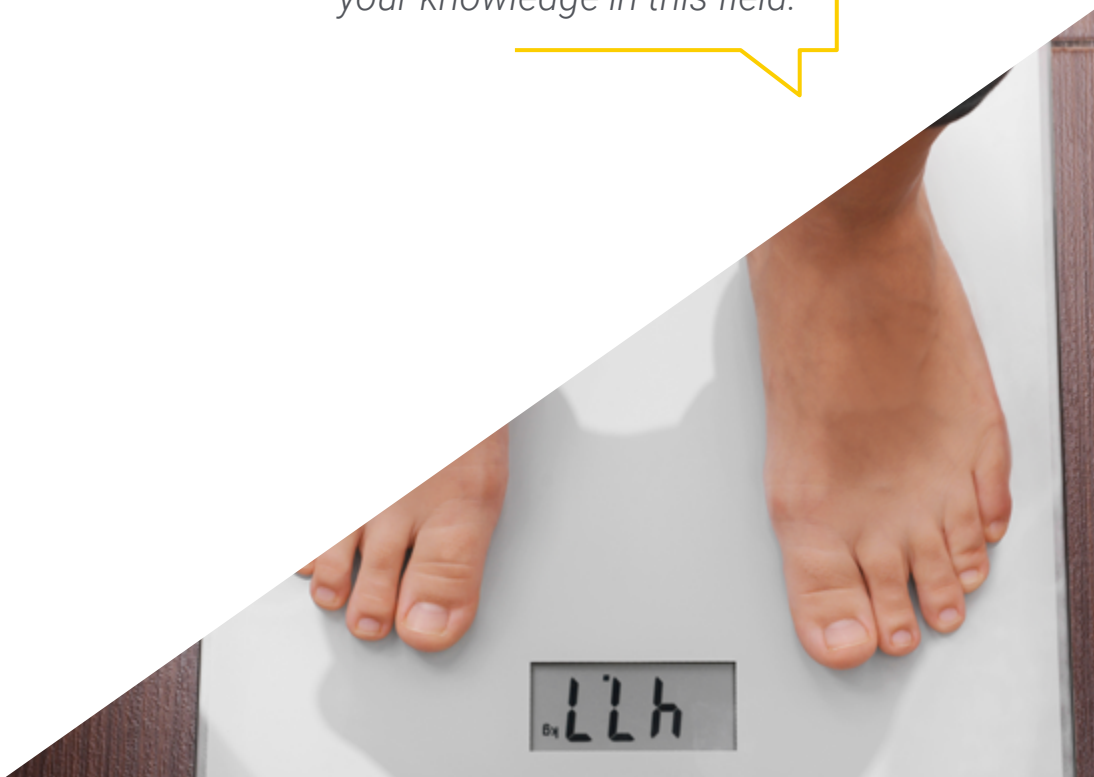
This program offers education in simulated environments, which provides an immersive learning experience designed to train for real-life situations.

This 100% online Postgraduate Diploma will allow you to balance your studies with your professional work while expanding your knowledge in this field.

Its teaching staff includes professionals belonging to the field of nutrition, who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that are presented to them throughout the course. For this purpose, they will be assisted by an innovative interactive video system created by renowned and experienced experts in Sports Nutrition.



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Objectives

The main objective of the program is the development of theoretical and practical learning, so that the sports science professional can master in a practical and rigorous way the study of Sports Nutrition in Special Populations.

This refresher program will provide you with a sense of confidence in your daily work, which will help you grow both personally and professionally"

General Objectives

- Handle advanced knowledge on nutritional planning in professional and non-professional athletes for the healthy performance of physical exercise.
- Manage advanced knowledge on nutritional planning in professional athletes of various fields in order to achieve maximum sports performance.
- Learn advanced knowledge about nutritional planning in professional athletes from team sports to achieve the highest sports performance
- Manage and consolidate the initiative, entrepreneurial spirit to implement projects related to nutrition in physical activity and sport
- Know how to incorporate the different scientific advances into one' s own professional field.
- Gain the ability to work in a multidisciplinary environment
- Gain an advanced understanding of the context in which their area of expertise is being developed.
- Manage advanced skills in the detection of possible signs of nutritional changes associated with sports activities.
- Manage the necessary skills through the teaching-learning process that will allow them to continue specializing and learning in the field of sports nutrition, both through contacts established with teachers and professionals of this program as well as in an autonomous way
- Specialize in the structure of muscle tissue and its role in sports.
- Gain knowledge about the energetic and nutritional needs of athletes in different pathophysiological situations.
- Specialize in the energy and nutritional needs of athletes in different age and gender specific situations
- Specialize in dietary strategies for the prevention and treatment of the injured athlete
- Specialize in the energetic and nutritional needs of child athletes.
- Specialize in the energy and nutritional needs of paralympic athletes

Take the step to get up to date on the latest developments in Nutrition in Physical Activity and Aquatic Sports"

Specific Objectives

Module 1. Aquatic Sports

- Delve into the most important characteristics of the main aquatic sports
- Understand the demands and requirements associated with sports activities in aquatic environments
- Distinguish between the nutritional needs of different aquatic sports

Module 2. Sports by Weight Category

- Establish the different characteristics and needs within sports by weight category
- Understand in depth the different nutritional strategies for preparing the athlete for competition.
- Optimize the improvement of body composition through nutritional approach.

Module 3. Different Stages or Specific Population Groups

- Explain the specific physiological characteristics to be taken into account in the nutritional approach of different groups.
- Understand in depth the external and internal factors that influence the nutritional approach to these groups.

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Course Management

TECH's teaching staff, experts in Sports Nutrition, has a wide prestige in the profession and are professionals with years of teaching experience who have joined forces to help students give a boost to their career. To this end, they have developed this Postgraduate Diploma with recent updates in the field that will allow them to specialize and increase their skills in this sector.

Learn from the best professionals and become a successful professional yourself"

International Guest Director

Jamie Meeks has proven throughout her career her dedication to **Sports Nutrition**. After graduating from Louisiana State University with a degree in Sports Nutrition, he quickly rose to prominence. Her talent and commitment were recognized when she received the prestigious **Young Dietitian of the Year award** from the Louisiana Dietetic Association, an achievement that marked the beginning of a successful career.

After completing her bachelor's degree, Jamie Meeks continued her education at the University of Arkansas, where she completed her internship in **Dietetics**. She then went on to obtain a Master's Degree in Kinesiology with a specialization in **Exercise Physiology** from Louisiana State University. Her passion for helping athletes reach their full potential and her tireless commitment to excellence make her a leading figure in the sports and nutrition community.
Her deep knowledge in this area led her to become the first **Director** of **Sports Nutrition** in the history of Louisiana State University's athletic department. There, she developed innovative programs to meet the dietary needs of athletes and educate them on the importance of **proper nutrition** for **optimal performance**.

Subsequently, she has held the position of **Director** of **Sports Nutrition** for the NFL's **New Orleans Saints**. In this role, she is dedicated to ensuring that professional players receive the best nutritional care possible, working closely with coaches, trainers, physical trainers and medical staff to optimize individual performance and health.

As such, Jamie Meeks is considered a true leader in her field, being an active member of several professional associations and participating in the advancement of **Sports Nutrition** on a national level. In this regard, she is also a member of the **Academy of Nutrition and Dietetics** and the **Association of Collegiate and Professional Sports Dietitians.**

Ms. Meeks, Jamie

- Director of Sports Nutrition for the New Orleans Saints of the NFL, Louisiana, United States
- Coordinator of Sports Nutrition at Louisiana State University
- Registered Dietitian by the Academy of Nutrition and Dietetics
- Certified Specialist in Sports Dietetics
- Master's Degree in Kinesiology with a specialization in Exercise Physiology from Louisiana State University
- Graduate in Dietetics from Louisiana State University
  Member of: Louisiana Dietetic Association, Association of Collegiate and Professional Sports Dietitians, Cardiovascular and Wellness Sports Nutrition Dietetic Practice Group

Thanks to TECH, you will be able to learn with the best professionals in the world"

Management

Dr. Marhuenda Hernández, Javier

- Nutritionist in professional soccer clubs
- Responsible for the sports nutrition area of Albacete Balompié.
- Responsible for the sports nutrition area of UCAM Murcia de Fútbol.
- Scientific advisor at Nutrium
- Nutritional advisor at Centro Impulso
- Teacher and coordinator of postgraduate studies.
- Doctor in Nutrition and Food Safety by UCAM
- Graduate in Human Nutrition and Dietetics by the UCAM.
- Master's Degree in Clinical Nutrition from UCAM
- Full member of the Spanish Academy of Nutrition and Dietetics.

Professors

Dr. Martínez Noguera, Francisco Javier

- Sports nutritionist at CIARD-UCAM
- Sports nutritionist at Jorge Lledó Physiotherapy Clinic
- Research assistant at CIARD-UCAM
- Sports nutritionist at UCAM Murcia Football Club
- Nutritionist at SANO Center
- Sports nutritionist at UCAM Murcia Basketball Club
- PhD in Sports Science from the Catholic University San Antonio de Murcia
- Graduate in Human Nutrition and Dietetics from the Catholic University San Antonio of Murcia
- Master's Degree in Nutrition and Food Safety from the Catholic University San Antonio of Murcia

Ms. Ramírez Munuera, Marta

- Sports Nutritionist expert in strength sports
- Nutritionist at M10 Health and Fitness
- Nutritionist at Mario Ortiz Nutrition
- Trainer in courses and workshops on Sports Nutrition.
- Speaker at conferences and seminars on Sports Nutrition.
- Graduate in Human Nutrition and Dietetics by UCAM
- Master's Degree in Nutrition in Physical Activity and Sport by the UCAM

Ms. Montoya Castaño, Johana

- Sports Nutritionist
- Nutritionist at the Ministry of Sports of Colombia.
- Scientific advisor at Bionutrition Medellín
- Professor in training courses on Sports Nutrition and in university studies.
- Nutritionist and Dietician from the University of Antioquia.
- Master's Degree in Nutrition in Physical Activity and Sport by the UCAM

Make the most of this opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04

Structure and Content

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

This Postgraduate Diploma in Nutrition in Physical Activity and Aquatic Sports contains the most complete and up-to-date scientific program on the market"

Module 1. Aquatic Sports

1.1. History of Aquatic Sports
- 1.1.1. Olympics and Major Tournaments
- 1.1.2. Aquatic Sports Today

1.2. Performance Limitations
- 1.2.1. Aquatic Sports in the Water (Swimming, Water Polo, etc.)
- 1.2.2. Aquatic Sports on the Water (Surfing, Sailing, Canoeing, etc.)

1.3. The Basic Characteristics of Aquatic Sports
- 1.3.1. Aquatic Sports in the Water (Swimming, Water polo, etc.)
- 1.3.2. Aquatic Sports on the Water (Surfing, Sailing, Canoeing, etc.)

1.4. Aquatic Sports Physiology
- 1.4.1. Energy Metabolism
- 1.4.2. Athlete Biotype

1.5. Education
- 1.5.1. Strength
- 1.5.2. Resistance

1.6. Body Composition
- 1.6.1. Swimming
- 1.6.2. Water Polo

1.7. Pre-Competition
- 1.7.1. 3 Hours Before
- 1.7.2. 1 Hour Before

1.8. Pre-Competition
- 1.8.1. Carbohydrates
- 1.8.2. Hydration

1.9. Post-Competition
- 1.9.1. Hydration
- 1.9.2. Protein

1.10. Ergogenic Aids
- 1.10.1. Creatine
- 1.10.2. Caffeine

Module 2. Sports by Weight Category

2.1. Characteristics of the Main Sports by Weight Category
- 2.1.1. Regulation
- 2.1.2. Categories

2.2. Programming of the Season
- 2.2.1. Competitions
- 2.2.2. Macrocycle

2.3. Body Composition
- 2.3.1. Combat Sports
- 2.3.2. Weightlifting

2.4. Stages of Muscle Mass Gain
- 2.4.1. Body Fat Percentage
- 2.4.2. Programming

2.5. Definition Stages
- 2.5.1. Carbohydrates
- 2.5.2. Protein

2.6. Pre-Competition
- 2.6.1. *Peek Week*
- 2.6.2. Before Weighing

2.7. Pre-Competition
- 2.7.1. Practical Applications
- 2.7.2. *Timing*

2.8. Post-Competition
- 2.8.1. Hydration
- 2.8.2. Protein

2.9. Ergogenic Aids
- 2.9.1. Creatine
- 2.9.2. *Whey Protein*

Module 3. Different Stages or Specific Population Groups

3.1. Nutrition in the Female Athlete
- 3.1.1. Limiting Factors
- 3.1.2. Requirements

3.2. Menstrual Cycle
- 3.2.1. Luteal Phase
- 3.2.2. Follicular Phase

3.3. Triad
- 3.3.1. Amenorrea
- 3.3.2. Osteoporosis

3.4. Nutrition in the Pregnant Female Athlete
- 3.4.1. Energy Requirements
- 3.4.2. Micronutrients

3.5. The Effects of Physical Exercise on the Child Athlete
- 3.5.1. Strength Training
- 3.5.2. Endurance Training

3.6. Nutritional Education in the Child Athlete
- 3.6.1. Sugar
- 3.6.2. Eating Disorders

3.7. Nutritional Requirements in the Child Athlete
- 3.7.1. Carbohydrates
- 3.7.2. Proteins

3.8. Changes Associated with Aging
- 3.8.1. Body Fat Percentage
- 3.8.2. Muscle Mass

3.9. Main Problems in Older Athletes
- 3.9.1. Joints
- 3.9.2. Cardiovascular Health

3.10. Interesting Supplements for Older Athletes
- 3.10.1. *Whey Protein*
- 3.10.2. Creatine

05

Methodology

This 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 method of skills and knowledge development. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

At TECH, you will experience a way of learning 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

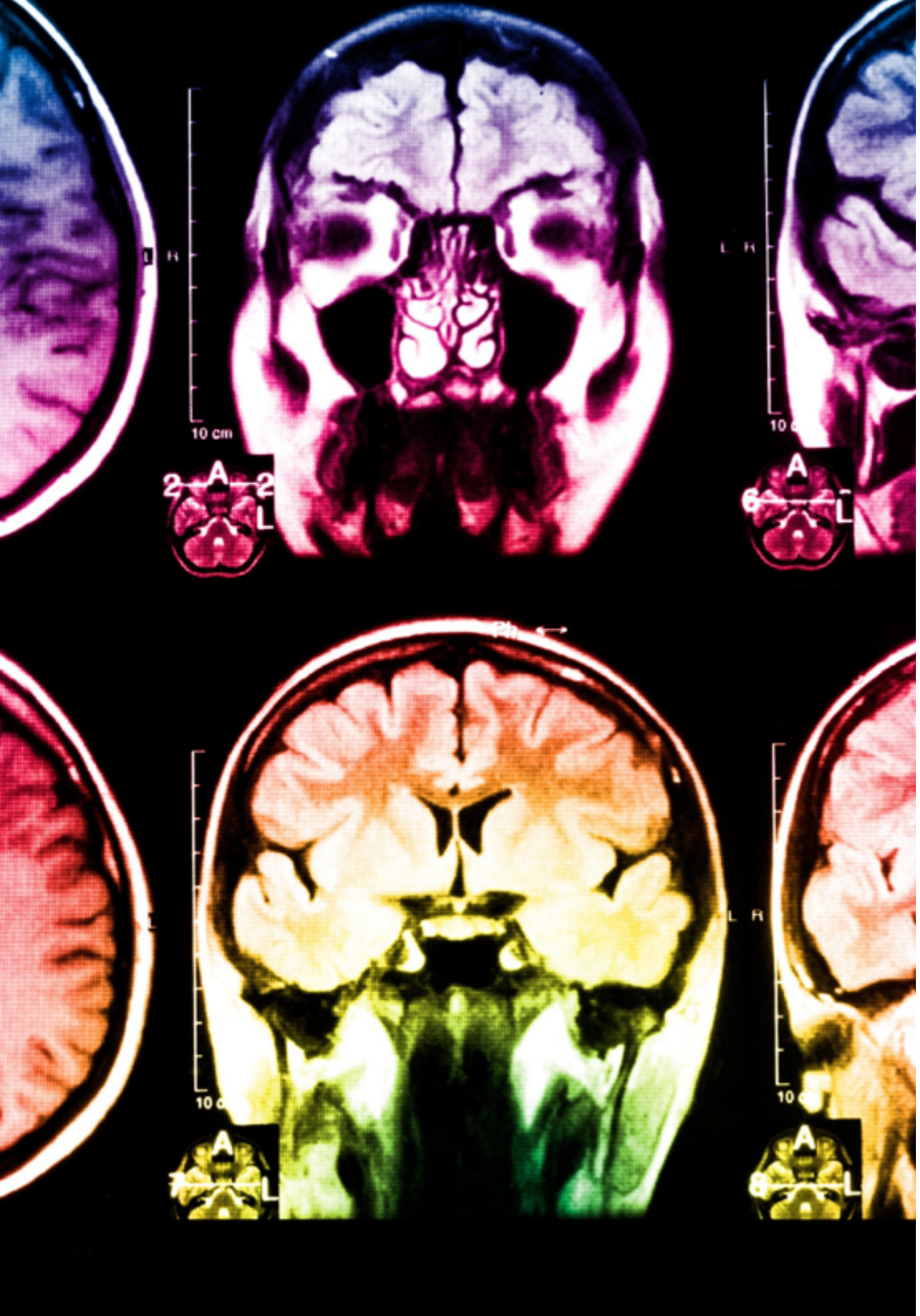
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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 prepare 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 enabled 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 education, 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 adapted in 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.

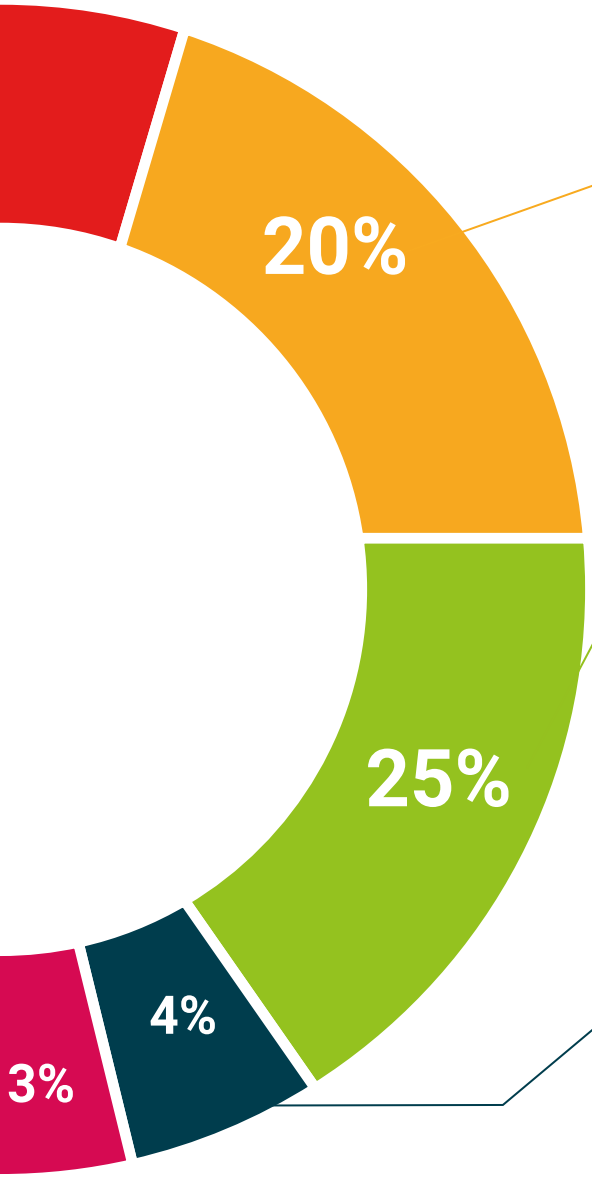
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Practicing Skills and Abilities

They 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 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 in an attractive and dynamic way in multimedia packages 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 assess and re-assess 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 Diploma in Nutrition in Physical Activity and Aquatic Sports guarantees students, in addition to the most accurate and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.

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

This program will allow you to obtain your **Postgraduate Diploma in Nutrition in Physical Activity and Aquatic Sports** 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** title 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 Diploma in Nutrition in Physical Activity and Aquatic Sports**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Nutrition in Physical Activity and Aquatic Sports

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

NBA
The Official Online University of the NBA

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

Unique TECH Code: AFWORD23S techtitute.com/certificates

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

Postgraduate Diploma

Nutrition in Physical Activity and Aquatic Sports

- Modality: **online**
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