



# Sports Nutrition in Specific Populations

» 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/sports-nutrition-specific-populations

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Certificate

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## 01 Introduction

The nutritional approach is based on many factors. Sometimes age and gender are not taken into account, since Sports Nutrition recommendations are based on goals, exercise intensities and other factors related to the event, the individual and the environment. From a practical standpoint, most differences due to age or sex in responses to a particular nutritional strategy are relatively small. However, depending on age and sex, different factors or situations will occur that will require specific nutritional treatment.



## tech 06 | Introduction

In the scientific literature on Sports Nutrition, the vast majority of studies have been conducted on men aged 18 to 30 years. Although a priori age and sex do not seem to be determining factors to be taken into account, it has been seen that within each population there are certain situations and particularities, whether at a metabolic or behavioral level, that should be studied specifically, as they may differ between young athletes, older athletes and female athletes, and when working with any of these groups within sport it is necessary to know them.

The Postgraduate Certificate has multimedia content that helps to acquire the knowledge that is taught, developed 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 training focused on solving real problems.

As it is an online Postgraduate Certificate, 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 Nutrition in Specific Populations** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- The graphic, schematic, and eminently practical contents with which they are created contain information that is indispensable for professional practice.
- It contains exercises where the self-assessment process can be carried out to improve learning.
- Algorithm-based interactive learning system for decision-making for patients with feeding problems.
- 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.



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

## Introduction | 07 tech



This Postgraduate Certificate may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Sports Nutrition in Specific Populations, you will obtain a Postgraduate Certificate qualification from TECH Technological University"

Its teaching staff includes professionals belonging to the field of nutrition, who contribute their work experience to this training, as well as renowned specialists from reference 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. The professional will be assisted by an innovative interactive video system created by renowned and experienced experts in sports nutrition.

The Postgraduate Certificate allows training in simulated environments, which provide immersive learning programmed to train for real situations.

This 100% online Postgraduate Certificate will allow you to combine your studies with your professional work while increasing your knowledge in this field.







## tech 10 | Objectives



#### **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 and entrepreneurial spirit needed to launch projects related to nutrition in physical activity and sport.
- Know how to incorporate the different scientific advances into one's own professional field
- Ability to work in a multidisciplinary environment
- 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 training and learning in the field of Sports Nutrition, both through the contacts
  established with teachers and professionals of this training, as well as in an autonomous
  way.

- Specialize in the structure of muscle tissue and its role in sports.
- Know the energetic and nutritional needs of athletes in different pathophysiological situations.
- Specialize in the energetic and nutritional needs of athletes in the different situations specific to age and gender.
- Become a specialist in the dietary strategies for the prevention and treatment of injured athletes
- Specialize in the energetic and nutritional needs of child athletes.
- Specialize in the energetic and nutritional needs of Paralympic athletes.



## Objectives | 11 tech



## **Specific Objectives**

- 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.



## tech 14 | Course Management

### Management



## Dr. Marhuenda Hernández, Javier

- Full Member of the Spanish Academy of Human Nutrition and Dietetics. Professor and researcher at UCAM
- Ph.D. in Nutrition
- Master's Degree in Clinical Nutrition
- Graduate in Nutrition



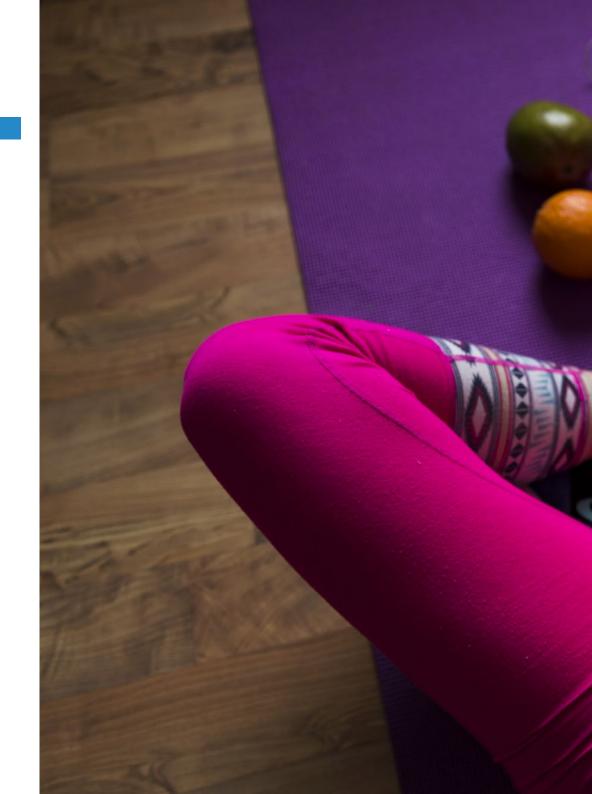




## tech 18 | Structure and Content

#### Module 1. Different Stages or Specific Population Groups

- 1.1. Nutrition in the Female Athlete
  - 1.1.1. Limiting Factors
  - 1.1.2. Requirements.
- 1.2. Menstrual Cycle
  - 1.2.1. The Luteal Phase
  - 1.2.2. The Follicular Phase
- 1.3. Triad
  - 1.3.1. Amenorrea
  - 1.3.2. Osteoporosis
- 1.4. Nutrition in the Pregnant Female Athlete
  - 1.4.1. Energy Requirements
  - 1.4.2. Micronutrients
- 1.5. Effects of Physical Exercise on the Child Athlete
  - 1.5.1. Strength Training
  - 1.5.2. Endurance Training
- 1.6. Nutritional Education in the Child Athlete
  - 1.6.1. Sugar
  - 1.6.2. Eating Disorders
- 1.7. Nutritional Requirements in the Child Athlete
  - 1.7.1. Carbohydrates
  - 1.7.2. Proteins.
- 1.8. Changes Associated with Aging
  - 1.8.1. Body Fat Percentage
  - 1.8.2. Muscle Mass
- 1.9. Main Problems in the Older Athlete
  - 1.9.1. Joints
  - 1.9.2. Cardiovascular Health
- 1.10. Interesting Supplements for Older Athletes
  - 1.10.1. Whey Protein
  - 1.10.2. Creatine

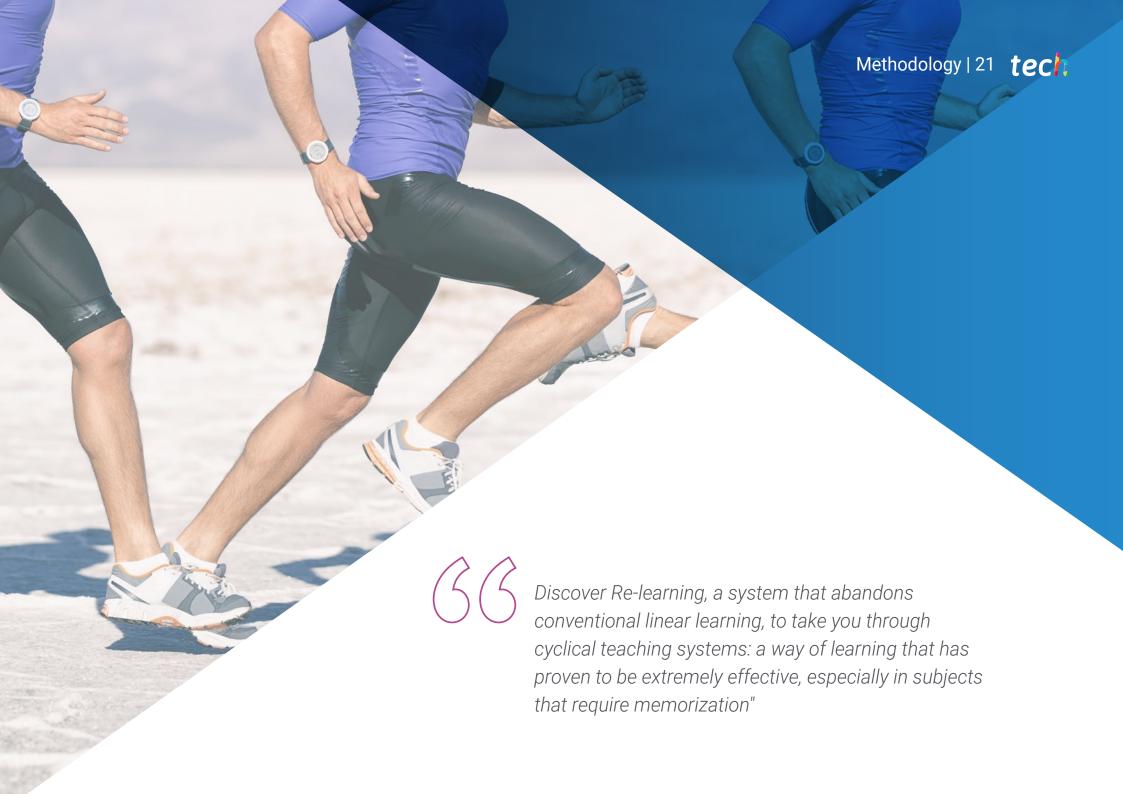






A unique, key and decisive training experience to boost your professional development"





## tech 22 | Methodology

#### At TECH we use the Case Method

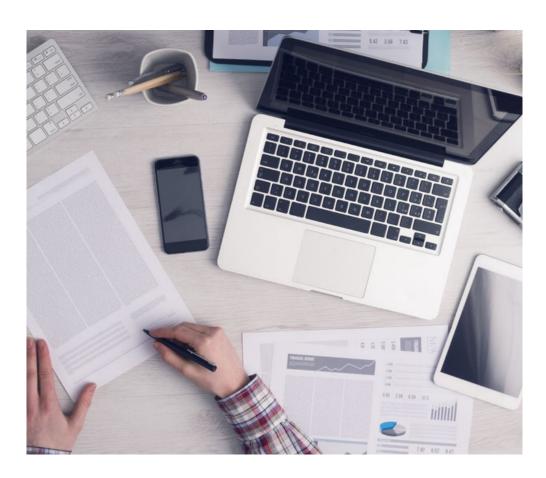
Our program offers you a revolutionary approach to developing your skills and knowledge. Our goal is to strengthen your skills in a changing, competitive, and highly demanding environment.



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.



The student will learn, through collaborative activities and real cases, how to solve complex situations in real business environments.

#### 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. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH you will use Harvard case studies, with which we have a strategic agreement that allows us to offer you material from the best university in the world.



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

The case method is the most widely used learning system by 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.

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.



### **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 8 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.



### Methodology | 25 tech

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 to 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.



## Methodology | 27 tech

20% 25%

4%

#### **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 multimedia content presentation training system 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.







## tech 30 | Certificate

This **Postgraduate Certificate in Sports Nutrition in Specific Populations** 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.** 

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Specialist Progression, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Certificate in Sports Nutrition in Specific Populations

ECTS: 6

Official Number of Hours: 150 hours.

Endorsed by the NBA





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## Postgraduate Certificate

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