**Postgraduate Diploma** Sports Nutrition in Diabetes, Vegetarianism and Veganism

Endorsed by the NBA





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## Postgraduate Diploma Sports Nutrition in Diabetes, Vegetarianism and Veganism

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

Website: www.techtitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-sports-nutrition-diabetes-vegetarianism-veganism

## Index



06 Certificate

## 01 Introduction

In the field of physiotherapy, advanced knowledge in nutrition is essential for those athletes who suffer from diabetes or who want to follow a vegetarian or vegan diet. These conditions imply very specific modifications in the dietary plans that are vital for physical health of the body. This requires specialized and advanced knowledge in the field, which is increasingly in demand in the job market. This is the reason why TECH has designed a qualification that aims to provide students with the necessary skills in Nutrition for Specific Populations, Vegetarianism and Veganism or Diabetes in athletes. All of this, in a convenient 100% online modality.



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Thanks to this complete program, you will be an expert in Diabetes, Vegetarianism and Veganism in just a few months"

## tech 06 | Introduction

In the face of health problems or chronic diseases, diet and physical activity play a fundamental role that cannot be overlooked if real health problems are to be avoided. This is the case of athletes who require specific dietary plans for diabetes or specific diets for vegetarians and vegans. Increasingly, professionals with specialized and specific knowledge who are able to adapt planning in the field of sports nutrition are more and more in demand in the job market.

This is the reason why TECH has designed a Postgraduate Diploma in Sports Nutrition in Diabetes, Vegetarianism and Veganism with which it seeks to provide students with skills and competencies with which to carry out this work with maximum quality and efficiency for the health of patients. This, through a syllabus that addresses topics such as Vegetarianism and Veganism in the history of sport, biochemical assessment, nutritional strategies, sports supplementation, among others.

All this, thanks to a 100% online mode that allows students to combine their studies with their other day-to-day obligations, with total freedom and without the need to travel. In addition, with the full availability of the most complete didactic materials, up-to-date information and the latest the most complete didactic materials, the most updated information and the latest teaching technologies. This **Postgraduate Diploma in Sports Nutrition in Diabetes, Vegetarianism and Veganism** contains the most complete and up-to-date Scientific program on the market. Its most outstanding features are:

- The development of case studies presented by experts in Sports Nutrition in Diabetes, Vegetarianism and Veganism
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the 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

Get to stand out in an agile and precise way in a booming sector in the area of Sports Nutrition" The from The the tha Thi mu the

## Introduction | 07 tech



Delve into the fundamentals of a diet plan based on Vegetarianism and Veganism, without leaving home and from any device with Internet connection" Acquire comprehensive and up-to-date knowledge on common errors in the vegan athlete.

Deepen your knowledge on Sports Nutrition in Diabetes, thanks to a complete and dynamic TECH program.

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading 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 education programmed to learn 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 For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

# 02 **Objectives**

The objective of this study plan is to provide the student with the necessary competencies and skills to be able to treat patients who require a specific plan for Diabetes, Vegetarianism or Veganism, with the highest possible quality and efficiency. All this, through the most complete and up-to-date theoretical and practical contents of the academic market.



TECH's objective is to enhance your professional profile and help you achieve your goals in a fast and accurate way"

## 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, 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
- Acquire the skills to work in a multidisciplinary environment
- Gain an advanced understanding of the context in which the area of their specialty is 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 ways and learning in the field of sports nutrition, both through the contacts established with professors and professionals in the Postgraduate Diploma as well as on their own
- 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 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**

### Module 1. 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

### Module 2. Vegetarianism and Veganism

- Differentiate between the different types of vegetarian athletes
- Gain an in-depth understanding of the main mistakes made
- Treat the notable nutritional deficiencies of sportsmen and sportswomen
- Manage skills to provide the athlete with the most effective tools to combine foods

## Module 3. The Type 1 Diabetic Athlete

- Establish the physiological and biochemical mechanism of diabetes both at rest and during exercise
- Deepen the understanding of how the different insulins or medications used by diabetics work
- Assess the nutritional requirements for people with diabetes both in their daily life and in exercise, to improve their health
- Deepen the knowledge necessary to plan nutrition for athletes of different disciplines with diabetes, in order to improve their health and performance
- Establish the current state of evidence on Performance Enhancing Drugs in diabetics

## 03 **Course Management**

The management and teaching staff of this Postgraduate Diploma in Sports Nutrition in Diabetes, Vegetarianism and Veganism have been selected by TECH under the most rigorous requirements and based on its search for excellence in teaching. These professionals are part of an outstanding team of experts and have poured their experience into all the contents, to give shape to a unique and updated syllabus.

Become an outstanding professional in Sports Nutrition, thanks to the constant support of the best experts in the field"

## tech 14 | Course Management

### Management



#### Dr. Marhuenda Hernández. Javier

- Nutritionist in Professional Football Clubs
- Responsible for the Sports Nutrition Area. Albacete Balompié Club SAD
- Responsible for the Sports Nutrition Area. Catholic University of Murcia, UCAM Murcia Football Club
- Scientific Advisor. Nutrium
- Professor and Coordinator of Postgraduate Studies
- PhD in Nutrition and Food Safety. San Antonio Catholic University of Murcia
- Graduate in Human Nutrition and Dietetics. San Antonio Catholic University of Murcia
- Master's Degree in Clinical Nutrition. San Antonio Catholic University of Murcia

## Structure and Content | 15 tech

### 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 Soccer 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

#### Dr. Arcusa Saura, Raúl

- Nutritionist. Castellón Sports Club
- Nutritionist in several semi-professional clubs in Castellón
- Researcher. San Antonio Catholic University of Murcia
- Undergraduate and Graduate Teaching
- Graduate in Human Nutrition and Dietetics
- Master's Degree in Nutrition in Physical Activity and Sport

#### Dr. Ramírez Munuera, Marta

- Sports Nutritionist expert in Strength Sports
- Nutritionist. M10 Health and Fitness. Health and Sports Center
- Nutritionist, Mario Ortiz Nutrition
- Trainer in courses and workshops on Sports Nutrition
- Speaker at conferences and seminars on Sports Nutrition
- Degree in Human Nutrition and Dietetics. San Antonio Catholic University of Murcia
- Master in Nutrition in Physical Activity and Sport. San Antonio Catholic University of Murcia



## 04 Structure and Content

The structure and contents of this syllabus have been designed by leading experts in the field, who have contributed their specialized knowledge and extensive experience to create a Postgraduate Diploma in Sports Nutrition in Diabetes, Vegetarianism and Veganism that is unique and meets the highest expectations.

## Structure and Content | 17 tech

Expertly designed syllabus and quality content that will take you as far as you want to go in the field of Sports 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. Luteal Phase
  - 1.2.2. 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. The 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
  - 1.8.2. Muscle Mass
- 1.9. Main Problems in Older Athletes

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



## Structure and Content | 19 tech

odu	le 2. ∖	/egetarianism and Veganism	Mod	lule 3. The Type 1 Diabetic Athlete
	Vegetai	rianism and Veganism in the History of Sport	3.1.	Knowing about Diabetes and its Pathology
	2.1.1.	The Beginnings of Veganism in Sport		3.1.1. The Incidence of Diabetes
	2.1.2.	Vegetarian Athletes Today		3.1.2. Pathophysiology of Diabetes
	Differer	nt Types of Vegan Food		3.1.3. The Consequences of Diabetes
	2.2.1.	The Vegan Athlete	3.2.	Exercise Physiology in People with Diabetes
	2.2.2.	The Vegetarian Athlete		3.2.1. Maximal, Submaximal Exercise and Muscle Metabolism during Exercise
	Commo	on Errors in the Vegan Athlete		3.2.2. Differences in the Metabolic Level during Exercise in People with Diabetes
	2.3.1.	Energy Balance	3.3.	Exercise in People with Type 1 Diabetes
	2.3.2.	Protein Consumption		3.3.1. Exercise in People with Type 1 Diabetes
	Vitamir	n B12		3.3.2. Exercise Duration and Carbohydrate Intake
	2.4.1.	B12 Supplementation	3.4.	Exercise in People with Type 2 Diabetes. Blood Sugar Control
	2.4.2.	Bioavailability of Spirulina Algae		3.4.1. Risks of Physical Activity in People with Type 2 Diabetes
	Protein	Sources in the Vegan/Vegetarian Diet		3.4.2. Benefits of Exercise in People with Type 2 Diabetes
	2.5.1.	Protein Quality	3.5.	Exercise in Children and Adolescents with Diabetes
	2.5.2.	Environmental Sustainability		3.5.1. Metabolic Effects of Exercise
	Other K	ey Nutrients in Vegans		3.5.2. Precautions during Exercise
	2.6.1.	Conversion of ALA to EPA/DHA	3.6.	Insulin Therapy and Exercise
	2.6.2.	Fe, Ca, Vit-D and Zn		3.6.1. Insulin Infusion Pump
	Biocher	nical Assessment/Nutritional Deficiencies		3.6.2. Types of Insulins
	2.7.1.	Anaemia	3.7.	Nutritional Strategies during Sport and Exercise in Type 1 Diabetes
	2.7.2.	Sarcopenia		3.7.1. From Theory to Practice
	Vegan [	Diet vs. Omnivorous Diet		3.7.2. Carbohydrate Intake Before, During and After Physical Exercise
	2.8.1.	Evolutionary Food		3.7.3. Hydration Before, During and After Physical Exercise
	2.8.2.	Current Food	3.8.	Nutritional Planning in Endurance Sports
	Ergogei	nic Aids		3.8.1. Marathon
	2.9.1.	Creatine		3.8.2. Cycling
	2.9.2.	Vegetable Protein	3.9.	Nutritional Planning in Team Sports
0.	Factors	that Decrease Nutrient Absorption		3.9.1. Soccer
	2.10.1.	High Fiber Intake		3.9.2. Rugby
	2.10.2.	Oxalates	3.10.	Sports Supplements and Diabetes
				3.10.1. Potentially Beneficial Supplements for Athletes with Diabetes

# 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"

## tech 22 | Methodology

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists learn better, faster, and more sustainably over time.

> With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.

![](_page_11_Figure_4.jpeg)

According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions of professional physiotherapy practice.

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

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

1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.

2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist 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.

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## tech 24 | Methodology

## **Relearning Methodology**

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

The physiotherapist/kinesiologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

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## Methodology | 25 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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.

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.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

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This program offers the best educational material, prepared with professionals in mind:

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#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really 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.

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#### **Physiotherapy Techniques and Procedures on Video**

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.

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#### 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 unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".

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#### 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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## Methodology | 27 tech

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#### **Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

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#### **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.

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#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

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#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

## 06 **Certificate**

The Postgraduate Diploma in Nutrition in Sports Nutrition in Diabetes, Vegetarianism and Veganism guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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"

## tech 30 | Certificate

This **Postgraduate Diploma in Sports Nutrition in Diabetes, Vegetarianism and Veganism** 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 Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Postgraduate Diploma in Sports Nutrition in Diabetes, Vegetarianism and Veganism Official N° of Hours: 450 h. Endorsed by the NBA

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![](_page_15_Picture_6.jpeg)

\*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

technological university Postgraduate Diploma Sports Nutrition in Diabetes, Vegetarianism and Veganism » Modality: online » Duration: 6 months » Certificate: TECH Technological University » Dedication: 16h/week » Schedule: at your own pace » Exams: online

**Postgraduate Diploma** Sports Nutrition in Diabetes, Vegetarianism and Veganism

Endorsed by the NBA

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