

# Postgraduate Diploma

## Nutrition in Aquatic Sports

Endorsed by the NBA





## Postgraduate Diploma Nutrition in Aquatic Sports

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

Website: [www.techtute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-nutrition-aquatic-sports](http://www.techtute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-nutrition-aquatic-sports)

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# 01

# Introduction

The medical professional must be updated in the latest techniques and novelties in Nutrition in Aquatic Sports to use an effective treatment, according to the needs of the physical activity performed.

A unique opportunity to specialise and stand out in a high-demand professional field.





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*The Postgraduate Diploma allows you to train in simulated environments that provide immersive learning programmed to train for real situations”*



Nowadays, it is essential for doctors to have a solid foundation in nutrition and to be constantly kept up to date so that they can give the correct advice and, when necessary, refer their patients. With this intensive training you will gain the knowledge and skills needed to make the dietary changes that will truly have a positive impact on athletes, depending on each clinical situation at hand.

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. Athletes competing in Aquatic Sports face the constant challenge of arduous training and competition schedules in difficult and changing environmental conditions. This program was created with the aim of training physicians as specialists within a multidisciplinary group to maximize sports performance and proper recovery of athletes who perform physical activities in the water.

Within this program you can find a teaching staff of the highest level, trained by professionals closely related to sports nutrition, outstanding in their field and leading lines of research and field work, as well as recognized specialists from reference societies and prestigious universities.

As it is an online Postgraduate Diploma, the student is not constrained by fixed timetables or the need to move to another physical location, but can access the contents at any time of the day, balancing their professional or personal life with their academic life.

This **Postgraduate Diploma in Nutrition in Aquatic Sports** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice
- ♦ It contains 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 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 from the best professionals  
and become a successful  
professional yourself"*

“

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

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 the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive learning programmed to prepare for real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the Postgraduate Diploma. The professional will be assisted by an innovative interactive video system created by renowned and experienced experts in sports nutrition.

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

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



# 02 Objectives

The main objective of the program is the development of theoretical and practical learning, so that the medical professional can master in a practical and rigorous way the study of sports nutrition in special populations.







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*This refresher program will generate a sense of security in the performance of your daily praxis, which will help you grow personally and professionally"*



## General Objectives

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- ♦ Manage advanced knowledge on nutritional planning in professional and non-professional athletes in professional and non-professional athletes for the healthy performance of physical exercise
- ♦ Manage advanced knowledge on nutritional planning in professional athletes of different disciplines to achieve maximum sports performance
- ♦ Manage advanced knowledge on nutritional planning in professional athletes of team disciplines to achieve maximum sports performance
- ♦ Manage and consolidate the initiative and 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
- ♦ Working in a multidisciplinary environment
- ♦ Manage and consolidate initiative and entrepreneurship to start up projects related to nutrition in physical activity
- ♦ Manage advanced skills to detect possible signs of nutritional alteration associated with sports practice
- ♦ Manage the necessary skills through the teaching-learning process that will allow them to continue training and learning in the field of nutrition in sport, both through the contacts established with teachers and professionals of this training in the field of nutrition in sport both through 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 implication in sport
- ♦ Know the energy 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 energy and nutritional needs of children athletes
- ♦ Specialize in the energy and nutritional needs of paralympic athletes



## Specific Objectives

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### Module 1. Watersports

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

### Module 2. Sports by Weight Category

- ♦ Establish the different characteristics and needs within sports by weight category
- ♦ Understand in depth the nutritional strategies in the preparation of 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





03

# Course Management

Our professors, experts university in sports nutrition, are well known in the profession and are professionals with years of teaching experience who have come together to help students boost their career. To this end, they have developed this Postgraduate Diploma with recent updates in the field that will allow students to you to specialize and increase your skills in this sector.



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*This Postgraduate Diploma is the best investment you can make when selecting of a refresher program for two reasons: in addition to updating your knowledge in Sports Nutrition, you will obtain a qualification from one of the leading online universities in the world: TECH Technological University”*

## Management



### Dr. Marhuenda Hernández, Javier

- Fellow of the Spanish Academy of Human Nutrition and Dietetics
- Professor and researcher at the Catholic UCAM University San Antonio in Murcia
- Ph.D. in Nutrition
- Master's Degree in Clinical Nutrition
- Graduate in Nutrition

## Professors

### Dr. Ramírez, Marta

- ♦ Graduate in Human Nutrition and Dietetics
- ♦ Master's Degree in Nutrition in Physical Activity and Sport
- ♦ Anthropometrist ISAK level 1
- ♦ Extensive professional experience both in the Clinical and Sports field, where she works with athletes in Triathlon, Athletics, Bodybuilding, CrossFit, Powerlifting, among others, specializing in strength
- ♦ Experience as an instructor and speaker giving seminars, courses, workshops and conferences on Sports Nutrition for Dietitians-Nutritionists, Students of Health Sciences and the general population, in addition to a continual training in nutrition and sport in international congresses, courses and conferences

### Dr. Montoya Castaño, Johana

- ♦ Nutritionist and Dietician from the University of Antioquia
- ♦ Master's Degree in Nutrition in Physical Activity and Sport by the UCAM Catholic University San Antonio in Murcia
- ♦ Sports Nutrition from the University of Barcelona
- ♦ Member of the DBSS Network, G-SE Research and Associates of the Exercise and Sport Nutrition Laboratory of the Health and Kinesiology Department, Texas A&M University





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# 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.



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



## Module 1. Watersports

- 1.1. History of Watersports
  - 1.1.1 Olympics and Major Tournaments
  - 1.1.2 Watersports 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 Water 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. Precompetition
  - 1.7.1 3 Hours Before
  - 1.7.2 1 Hour Before
- 1.8. Precompetition
  - 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. Precompetition
  - 2.6.1 Peak Weak
  - 2.6.2 Before Weighing
- 2.7. Precompetition
  - 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 Amenorrhea
  - 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 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"*

## 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. Specialists 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.*



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 in the physician's professional practice.

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*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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate 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.





## 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.

*Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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 TECH's learning system is 8.01, according to the highest international standards.



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.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. 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 the videos as many times as you like.



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



#### 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.







#### 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.



#### 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.



#### 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.



#### 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 Aquatic Sports 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"*



This **Postgraduate Diploma in Nutrition in Aquatic Sports** contains the most complete and up-to-date scientific 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 certificate 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 Nutrition in Aquatic Sports**

Official N° of Hours: **450 h.**

Endorsed by the NBA



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



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**tech** technological  
university