

Professional Master's Degree Therapeutic Sports Nutrition

Endorsed by the NBA





Professional Master's Degree Therapeutic Sports Nutrition

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/pk/medicine/professional-master-degree/master-therapeutic-sports-nutrition

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 14

04

Course Management

p. 18

05

Structure and Content

p. 22

06

Methodology

p. 30

07

Certificate

p. 38

01

Introduction

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 qualification 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.



“

The role of physicians in the field of sports is essential for the nutritional guidance of people who wish to increase their fitness and engage in some kind of physical activity"

Medical professionals must update their knowledge of nutrition so that they can provide the best dietary recommendations that are aimed at not only preventing disease but also enabling optimal health in sportsmen and women facing challenging sporting situations. The meticulous choice of foods, which not only establishes a varied and balanced diet in sufficient quantity, but which also is essential for the correct development of the individual.

The Professional Master's Degree 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 training focused on solving real problems.

This Professional Master's Degree focuses on the aspects that are least studied during university, allowing students to broaden the knowledge required to cover a wide spectrum of potential athletes, as well as to meet their nutritional needs. Within this program we can find a teaching staff of the highest level, made up of professionals closely related to Sports Nutrition, outstanding in their field and who lead lines of research and field work, as well as recognized specialists from leading societies and prestigious universities.

As it is an online program, the student is not constrained by fixed schedules or the need to move to another physical location, but rather, they can access the contents at any time of the day, allowing them to balance their professional or personal life with their academic life as they please.

This **Professional Master's Degree in Therapeutic Sports Nutrition** 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
- ◆ 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 assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



Delve into the study of this very complete Professional Master's Degree and improve your skills in nutritional consulting for sportsmen and women"

“

This Professional Master's Degree is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge of sports nutrition, you will obtain a qualification from TECH Technological University"

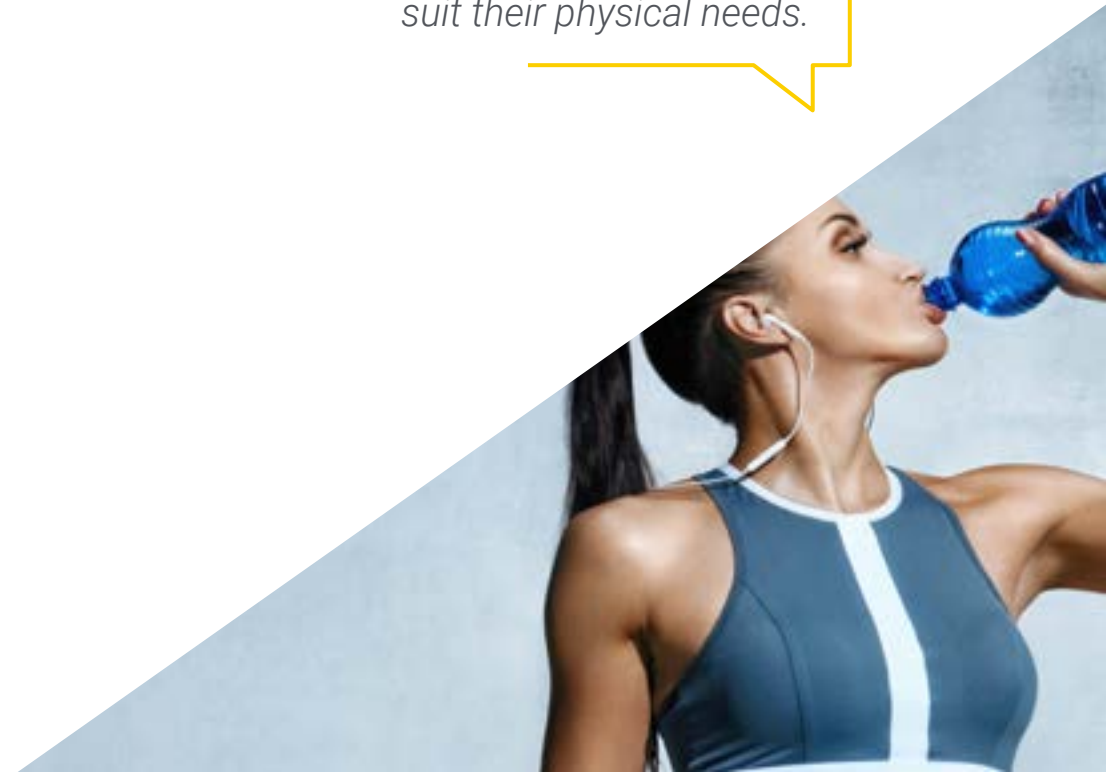
The teaching staff includes medical professionals who bring their experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 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 throughout the program. The professional will be assisted by an innovative interactive video system created by renowned and experienced experts in sports nutrition.

This Professional Master's Degree gives you the opportunity to practice in simulated environments, which provide immersive learning programmed to train in real situations.

You will learn how to prepare the most appropriate diets for each type of athlete and recommend the products that best suit their physical needs.



02 Objectives

The principal objective of the program is the development of both theoretical and practical learning, so that the professional can master, in a practical and rigorous way, the study of sports nutrition in special population groups.





“

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 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
- ◆ Working in a multidisciplinary environment
- ◆ 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 program as well as on their own
- ◆ 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



Specific Objectives

Module 1. Muscle and Metabolic Physiology Associated with Exercise

- ◆ Gain an in-depth understanding of the structure of skeletal muscle
- ◆ Understand in depth the functioning of skeletal muscle
- ◆ Deepen understanding of the most important changes that occur in athletes
- ◆ Delve into the mechanisms of energy production according to the type of exercise carried out
- ◆ Further understanding of the interaction between the different energy systems that make up the muscle energy metabolism

Module 2. Athlete Assessment at Different Times of the Season

- ◆ Biochemical interpretation to detect nutritional deficits or overtraining states
- ◆ Interpretation of the different types of body composition in order to optimize the appropriate weight and fat percentage for the sport being practiced
- ◆ Monitoring of the athlete throughout the season
- ◆ Planning of seasonal schedules according to individual requirements

Module 3. Water Sports

- ◆ Deepen understanding of the most important characteristics of the principal water sports
- ◆ Understand the demands and requirements associated with sports activities in aquatic environments
- ◆ Distinguish between the nutritional needs of different water sports



Module 4. Extreme Conditions

- ◆ Differentiate between the main performance limiting factors caused by climate
- ◆ Develop an acclimatization plan appropriate to the situation given
- ◆ Deepen understanding of the physiological changes caused by high altitude
- ◆ Establish the correct individual hydration guidelines according to the climate

Module 5. 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 6. 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



Module 7. Nutrition for Paralympic Athletes

- ◆ Deepen understanding of the differences between the different categories of para-athletes and their physiological-metabolic limitations
- ◆ Determine the nutritional requirements of the different paralympic athletes in order to establish a specific nutritional plan
- ◆ Further the knowledge necessary to establish interactions between the ingestion of pharmaceuticals in these athletes and nutrients, to avoid nutrient deficits
- ◆ Understand the body composition of paralympic athletes in different sport categories
- ◆ Apply current scientific evidence on nutritional performance enhancing drugs

Module 8. Weight Category Sports

- ◆ 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 9. Different Stages or Specific 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 10. Injury Period

- ◆ Determine the different phases of the injury
- ◆ Help in the prevention of injuries
- ◆ Improve the prognosis of the injury
- ◆ Develop a nutritional strategy to meet the changing nutritional requirements during the injury period



Our goal is to achieve academic excellence and to help you achieve it too"

03 Skills

After passing the assessments of the Professional Master's Degree in Therapeutic Sports Nutrition, the professional will have acquired the necessary skills for a quality and up-to-date practice based on the most innovative teaching methodology.



“

This program will help you acquire the skills you need to excel in your daily work"



General Skills

- ◆ Apply new trends in therapeutic sports nutrition to your patient's treatment
- ◆ Apply the new trends in nutrition depending on the adult's pathologies
- ◆ Investigate the nutritional problems of your patients

“

A unique program that will allow you to acquire superior education to develop in this highly competitive field"





Specific Skills

- ◆ Manage and consolidate the initiative and entrepreneurial spirit to implement projects related to nutrition in physical activity and sport
- ◆ Manage advanced skills in the detection of possible signs of nutritional changes associated with sports activities
- ◆ 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 child athletes
- ◆ Specialize in the energetic and nutritional needs of paralympic athletes

04

Course Management

Our teachers, experts 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 Professional Master's Degree with the latest developments in the field that will allow you to specialize and enhance your skills in this sector.





“

*Learn from the best professionals and
become a successful professional yourself”*

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
- ◆ PhD in Nutrition
- ◆ Master's Degree in Clinical Nutrition
- ◆ Graduate in Nutrition

Professors

Dr. Arcusa, Raúl

- ◆ Graduate in Human Nutrition and Dietetics
- ◆ Professional Master's Degree in Nutrition in Physical Activity and Sport
- ◆ Anthropometrist ISAK level
- ◆ He is currently a doctoral student at the Department of Pharmacy of the UCAM, in the research line of Nutrition and Oxidative Stress, activity that he combines with his work as a nutritionist in the youth team of C.D. Castellón
- ◆ Possesses experience in different soccer teams in the Valencian community, as well as extensive experience in face-to-face clinical consultation

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



Dr. Ramírez, Marta

- ◆ Graduate in Human Nutrition and Dietetics
- ◆ Master's Degree in Nutrition in Physical Activity and Sport
- ◆ Anthropometrist ISAK level
- ◆ 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 a 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

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

05

Structure and Content

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





“

This Professional Master's Degree in Therapeutic Sports Nutrition contains the most complete and up-to-date scientific program on the market"

Module 1. Muscle and Metabolic Physiology Associated with Exercise

- 1.1. Cardiovascular Adaptations Related to Exercise
 - 1.1.1. Increased Systolic Volume
 - 1.1.2. Decreased Heart Rate
- 1.2. Ventilatory Adaptations Related to Exercise
 - 1.2.1. Changes in the Ventilatory Volume
 - 1.2.2. Changes in Oxygen Consumption
- 1.3. Hormonal Adaptations Related to Exercise
 - 1.3.1. Cortisol
 - 1.3.2. Testosterone
- 1.4. Muscle Structure and Types of Muscle Fibers
 - 1.4.1. Muscle Fiber
 - 1.4.2. Type I Muscle Fiber
 - 1.4.3. Type II Muscle Fibers
- 1.5. The Concept of Lactic Threshold
- 1.6. ATP and Phosphagen Metabolism
 - 1.6.1. Metabolic Pathways for ATP Resynthesis during Exercise
 - 1.6.2. Phosphagen Metabolism
- 1.7. Carbohydrate Metabolism
 - 1.7.1. Carbohydrate Mobilization during Exercise
 - 1.7.2. Types of Glycolysis
- 1.8. Lipid Metabolism
 - 1.8.1. Lipolysis
 - 1.8.2. Fat Oxidation during Exercise
 - 1.8.3. Ketone Bodies
- 1.9. Protein Metabolism
 - 1.9.1. Ammonium Metabolism
 - 1.9.2. Amino Acid Oxidation
- 1.10. Mixed Bioenergetics of Muscle Fibers
 - 1.10.1. Energy Sources and their Relation to Exercise
 - 1.10.2. Factors Determining the Use of One or Another Energy Source during Exercise



Module 2. Athlete Assessment at Different Times of the Season

- 2.1. Biochemical Evaluation
 - 2.1.1. Blood Count
 - 2.1.2. Overtraining Markers
- 2.2. Anthropometric Assessment
 - 2.2.1. Body composition
 - 2.2.2. ISAK Profile
- 2.3. Preseason
 - 2.3.1. High Workload
 - 2.3.2. Assuring Caloric and Protein Intake
- 2.4. Competitive Season
 - 2.4.1. Sports Performance
 - 2.4.2. Recovery between Games
- 2.5. Transition Period
 - 2.5.1. Vocational Period
 - 2.5.2. Changes in Body Composition
- 2.6. Travel
 - 2.6.1. Tournaments during the Season
 - 2.6.2. Off-Season Tournaments (World Cups, European Cups and The Olympic Games)
- 2.7. Athlete Monitoring
 - 2.7.1. Basal Athlete Status
 - 2.7.2. Evolution during the Season
- 2.8. Sweat Rate Calculation
 - 2.8.1. Hydric Losses
 - 2.8.2. Calculation Protocol
- 2.9. Multidisciplinary Work
 - 2.9.1. The Role of the Nutritionist in the Athlete's Environment
 - 2.9.2. Communication with the Rest of the Areas
- 2.10. Doping
 - 2.10.1. WADA List
 - 2.10.2. Anti-Doping Tests

Module 3. Water Sports

- 3.1. History of Water Sports
 - 3.1.1. Olympics and Major Tournaments
 - 3.1.2. Water Sports Today
- 3.2. Performance Limitations
 - 3.2.1. Aquatic Sports in the Water (Swimming, Water Polo, etc.)
 - 3.2.2. Aquatic Sports on the Water (Surfing, Sailing, Canoeing, etc.)
- 3.3. The Basic Characteristics of Water Sports
 - 3.3.1. Aquatic Sports in the Water (Swimming, Water Polo, etc.)
 - 3.3.2. Aquatic Sports on the Water (Surfing, Sailing, Canoeing, etc.)
- 3.4. Aquatic Sports Physiology
 - 3.4.1. Energy Metabolism
 - 3.4.2. Athlete Biotype
- 3.5. Training
 - 3.5.1. Strength
 - 3.5.2. Resistance
- 3.6. Body Composition
 - 3.6.1. Swimming
 - 3.6.2. Water Polo
- 3.7. Precompetition
 - 3.7.1. 3 Hours Before
 - 3.7.2. 1 Hour Before
- 3.8. Pre-Competition
 - 3.8.1. Carbohydrates
 - 3.8.2. Hydration
- 3.9. Post-Competition
 - 3.9.1. Hydration
 - 3.9.2. Protein
- 3.10. Ergogenic Aids
 - 3.10.1. Creatine
 - 3.10.2. Caffeine

Module 4. Extreme Conditions

- 4.1. The History of Sport in Extreme Conditions
 - 4.1.1. Winter Competitions throughout History
 - 4.1.2. Competitions in Hot Environments Today
- 4.2. Performance Limitations in Hot Climates
 - 4.2.1. Dehydration
 - 4.2.2. Fatigue
- 4.3. Basic Characteristics in Hot Climates
 - 4.3.1. High Temperature and Humidity
 - 4.3.2. Acclimatization
- 4.4. Nutrition and Hydration in Hot Climates
 - 4.4.1. Hydration and Electrolytes
 - 4.4.2. Carbohydrates
- 4.5. Performance Limitations in Cold Climates
 - 4.5.1. Fatigue
 - 4.5.2. Bulky Clothing
- 4.6. Basic Characteristics in Cold Climates
 - 4.6.1. Extreme Cold
 - 4.6.2. Reduced V02 Max
- 4.7. Nutrition and Hydration in Cold Climates
 - 4.7.1. Hydration
 - 4.7.2. Carbohydrates

Module 5. Vegetarianism and Veganism

- 5.1. Vegetarianism and Veganism in the History of Sport
 - 5.1.1. The Beginnings of Veganism in Sport
 - 5.1.2. Vegetarian Athletes Today
- 5.2. Different Types of Naturopathic Food
 - 5.2.1. The Vegan Athlete
 - 5.2.2. The Vegetarian Athlete
- 5.3. Common Errors in the Vegan Athlete
 - 5.3.1. Energy Balance.
 - 5.3.2. Protein Consumption

- 5.4. Vitamin B12
 - 5.4.1. B12 Supplementation
 - 5.4.2. Bioavailability of Spirulina Algae
- 5.5. Protein Sources in the Vegan/Vegetarian Diet
 - 5.5.1. Protein Quality
 - 5.5.2. Environmental Sustainability
- 5.6. Other Key Nutrients in Vegans
 - 5.6.1. Conversion of ALA to EPA/DHA
 - 5.6.2. Fe, Ca, Vit-D and Zn
- 5.7. Biochemical Assessment/Nutritional Deficiencies
 - 5.7.1. Anemia
 - 5.7.2. Sarcopenia
- 5.8. Vegan Diet vs. Omnivorous Diet
 - 5.8.1. Evolutionary Food
 - 5.8.2. Current Food
- 5.9. Ergogenic Aids
 - 5.9.1. Creatine
 - 5.9.2. Vegetable Protein
- 5.10. Factors that Decrease Nutrient Absorption
 - 5.10.1. High Fiber Intake
 - 5.10.2. Oxalates

Module 6. Type 1 Diabetic Athlete

- 6.1. Knowing about Diabetes and its Pathology
 - 6.1.1. The Incidence of Diabetes
 - 6.1.2. Pathophysiology of Diabetes
 - 6.1.3. The Consequences of Diabetes
- 6.2. Exercise Physiology in People with Diabetes
 - 6.2.1. Maximal, Submaximal Exercise and Muscle Metabolism During Exercise
 - 6.2.2. Differences in the Metabolic Level During Exercise in People with Diabetes
- 6.3. Exercise in People with Type 1 Diabetes
 - 6.3.1. Exercise in People with Type 1 Diabetes
 - 6.3.2. Exercise Duration and Carbohydrate Intake

- 6.4. Exercise in People with Type 2 Diabetes. Blood Sugar Control
 - 6.4.1. Risks of Physical Activity in People with Type 2 Diabetes
 - 6.4.2. Benefits of Exercise in People with Type 2 Diabetes
- 6.5. Exercise in Children and Adolescents with Diabetes
 - 6.5.1. Metabolic Effects of Exercise
 - 6.5.2. Precautions during Exercise
- 6.6. Insulin Therapy and Exercise
 - 6.6.1. Insulin Infusion Pump
 - 6.6.2. Types of Insulins
- 6.7. Nutritional Strategies During Sport and Exercise in Type 1 Diabetes
 - 6.7.1. From Theory to Practice
 - 6.7.2. Carbohydrate Intake Before, During and After Physical Exercise
 - 6.7.3. Hydration Before, During and After Physical Exercise
- 6.8. Nutritional Planning in Endurance Sports
 - 6.8.1. Marathon
 - 6.8.2. Cycling
- 6.9. Nutritional Planning in Team Sports
 - 6.9.1. Soccer
 - 6.9.2. Rugby
- 6.10. Sports Supplements and Diabetes
 - 6.10.1. Potentially Beneficial Supplements for Athletes with Diabetes

Module 7. Nutrition for Para-Athletes

- 7.1. Classification and Categories for Para-Athletes
 - 7.1.1. What Is a Para-Athlete?
 - 7.1.2. How Are Para-Athletes Classified?
- 7.2. Sports Science in Para-Athletes
 - 7.2.1. Metabolism and Physiology
 - 7.2.2. Biomechanics
 - 7.2.3. Psychology
- 7.3. Energy Requirements and Hydration in Para-Athletes
 - 7.3.1. Optimal Energy Demands for Training
 - 7.3.2. Hydration Planning Before, During and After Training and Competitions

- 7.4. Nutritional Problems in the Different Categories of Para-Athletes According to Pathology or Anomaly
 - 7.4.1. Spinal Cord Injuries
 - 7.4.2. Cerebral Palsy and Acquired Brain Injuries
 - 7.4.3. Amputees
 - 7.4.4. Vision and Hearing Impairment
 - 7.4.5. Intellectual Impairments
- 7.5. Nutritional Planning in Para-Athletes with Spinal Cord Injury, Cerebral Palsy and Acquired Brain Injuries
 - 7.5.1. Nutritional Requirements (Macro and Micronutrients)
 - 7.5.2. Sweating and Fluid Replacement during Exercise
- 7.6. Nutritional Planning in Amputee Para-Athletes
 - 7.6.1. Energy Requirements
 - 7.6.2. Macronutrients
 - 7.6.3. Thermoregulation and Hydration
 - 7.6.4. Nutritional Issues Related to Prosthetics
- 7.7. Planning and Nutritional Problems in Para-Athletes with Vision-Hearing Impairment and Intellectual Impairment
 - 7.7.1. Sports Nutrition Problems with Vision Impairment: Retinitis Pigmentosa, Diabetic Retinopathy, Albinism, Stargardt's Disease and Hearing Pathologies
 - 7.7.2. Sports Nutrition Problems With Intellectual Deficiencies: Down Syndrome, Autism, Aspergers Syndrome and Phenylketonuria
- 7.8. Body Composition in Para-Athletes
 - 7.8.1. Measurement Techniques
 - 7.8.2. Factors Influencing the Reliability of Different Measurement Methods
- 7.9. Pharmacology and Nutrient Interactions
 - 7.9.1. Different Types of Drugs Taken by Para-Athletes
 - 7.9.2. Micronutrient Deficiencies in Para-Athletes
- 7.10. Ergogenic Aids
 - 7.10.1. Potentially Beneficial Supplements for Para-Athletes
 - 7.10.2. Adverse Effects on Health and Contamination and Doping Problems Due to the Intake of Performance Enhancing drugs

Module 8. Weight Category Sports

- 8.1. Characteristics of the Main Weight Category Sports
 - 8.1.1. Regulation
 - 8.1.2. Categories
- 8.2. Programming of the Season
 - 8.2.1. Competitions
 - 8.2.2. Macrocycle
- 8.3. Body Composition
 - 8.3.1. Combat Sports
 - 8.3.2. Weightlifting
- 8.4. Stages of Muscle Mass Gain
 - 8.4.1. Body Fat Percentage
 - 8.4.2. Programming
- 8.5. Definition Stages
 - 8.5.1. Carbohydrates
 - 8.5.2. Protein
- 8.6. Pre-Competition
 - 8.6.1. *Peek Weak*
 - 8.6.2. Before Weighing
- 8.7. Pre-Competition
 - 8.7.1. Practical Applications
 - 8.7.2. *Timing*
- 8.8. Post-Competition
 - 8.8.1. Hydration
 - 8.8.2. Protein
- 8.9. Ergogenic Aids
 - 8.9.1. Creatine
 - 8.9.2. *Whey Protein*

Module 9. Different Stages or Specific Groups

- 9.1. Nutrition in Female Athletes
 - 9.1.1. Limiting Factors
 - 9.1.2. Requirements
- 9.2. Menstrual Cycle
 - 9.2.1. Luteal Phase
 - 9.2.2. Follicular Phase
- 9.3. Triad
 - 9.3.1. Amenorrhea
 - 9.3.2. Osteoporosis
- 9.4. Nutrition in Pregnant Female Athletes
 - 9.4.1. Energy Requirements
 - 9.4.2. Micronutrients
- 9.5. The Effects of Physical Exercise in Young Athletes
 - 9.5.1. Strength Training
 - 9.5.2. Endurance Training
- 9.6. Nutritional Education in Young Athletes
 - 9.6.1. Sugar
 - 9.6.2. Eating Disorders
- 9.7. Nutritional Requirements in Young Athletes
 - 9.7.1. Carbohydrates
 - 9.7.2. Proteins
- 9.8. Changes Associated with Aging
 - 9.8.1. Body Fat Percentage
 - 9.8.2. Muscle Mass
- 9.9. Main Problems in Older Athletes
 - 9.9.1. Joints
 - 9.9.2. Cardiovascular Health
- 9.10. Interesting Supplements for Older Athletes
 - 9.10.1. *Whey Protein*
 - 9.10.2. Creatine

Module 10. Injury Period

- 10.1. Introduction
- 10.2. Prevention of Injuries in Athletes
 - 10.2.1. Relative Energy Availability in Sport
 - 10.2.2. Oral Health and Injury Implications
 - 10.2.3. Fatigue, Nutrition and Injuries
 - 10.2.4. Sleep, Nutrition and Injuries
- 10.3. Phases of Injury
 - 10.3.1. Immobilization Phase. Inflammation and Changes Occurring During this Phase
 - 10.3.2. Return of Activity Phase
- 10.4. Energy Intake During the Injury Period
- 10.5. Macronutrient Intake During the Injury Period
 - 10.5.1. Carbohydrate Intake
 - 10.5.2. Fat Intake
 - 10.5.3. Protein Intake
- 10.6. Intake of Micronutrients of Special Interest During Injury
- 10.7. Sports Supplements with Evidence During the Injury Period
 - 10.7.1. Creatine
 - 10.7.2. Omega 3
 - 10.7.3. Others
- 10.8. Tendon and Ligament Injuries
 - 10.8.1. Introduction to Tendon and Ligament Injuries. Tendon Structure
 - 10.8.2. Collagen, Gelatin and Vitamin C. Can they Help?
 - 10.8.3. Other Nutrients Involved in Collagen Synthesis
- 10.9. The Return to Competition
 - 10.9.1. Nutritional Considerations in the Return to Competition
- 10.10. Interesting Case Studies in Scientific Injury Literature



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

06

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.



“

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.

“

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.



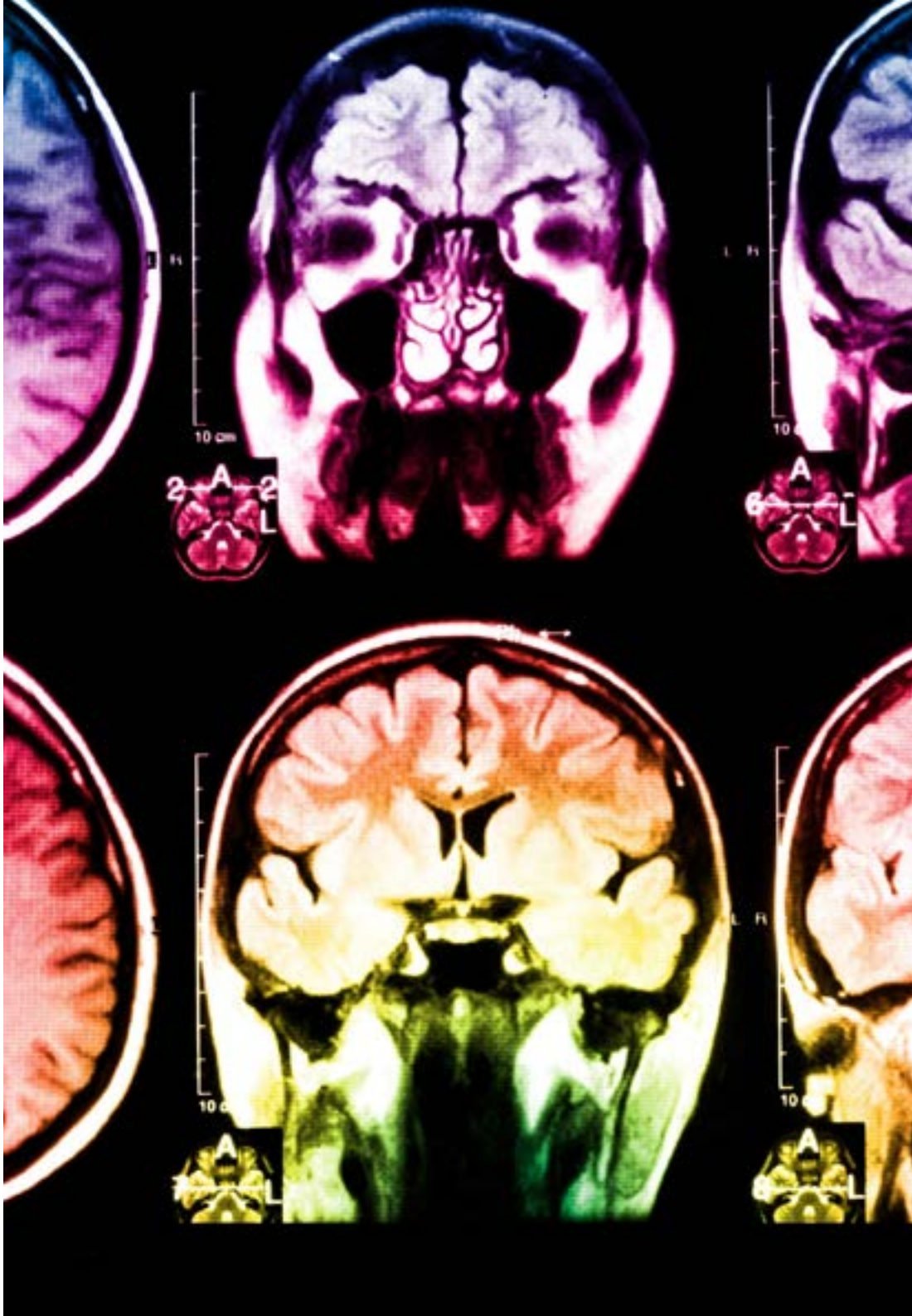
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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.

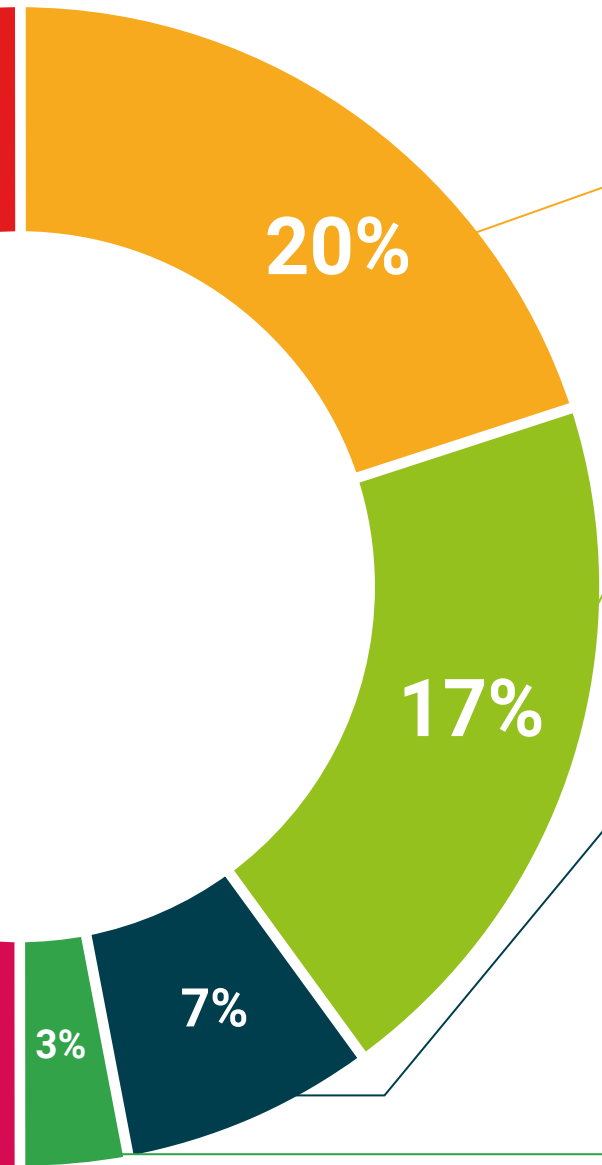
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.



07 Certificate

The Professional Master's Degree in Therapeutic Sports Nutrition guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.



“

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

This **Professional Master's Degree in Therapeutic Sports Nutrition** contains the most complete and up-to-date program on the market.

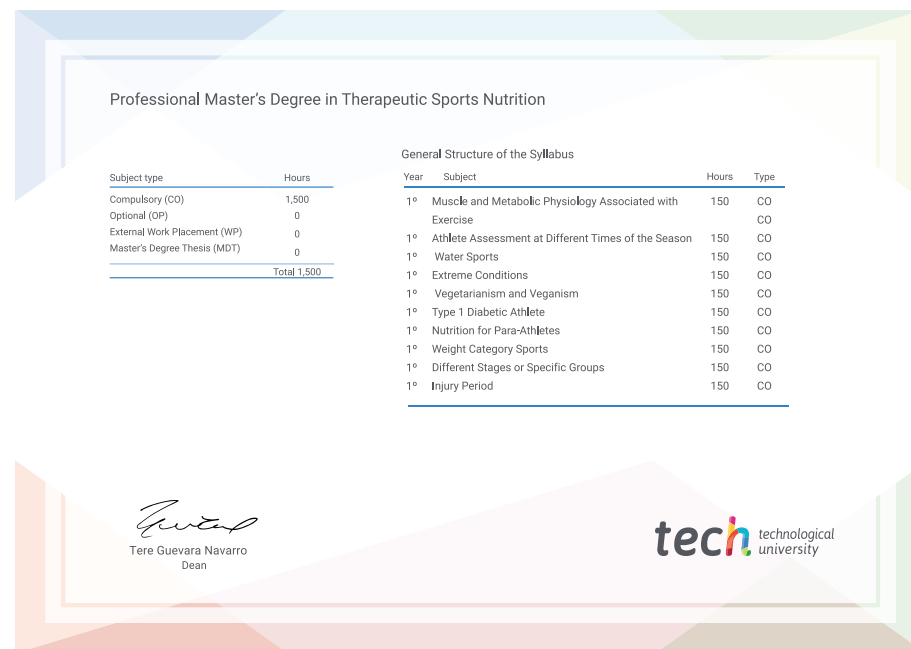
After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** certificate issued by **TECH Technological University** via tracked delivery*.

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

Title: **Professional Master's Degree in Therapeutic Sports Nutrition**

Official N° of Hours: **1,500 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.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service information
knowledge present quality
development languages
virtual classroom



Professional Master's Degree Therapeutic Sports Nutrition

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Professional Master's Degree Therapeutic Sports Nutrition

Endorsed by the NBA

