

Master's Degree

Sports Nutrition in Special Populations for Nursing





Master's Degree Sports Nutrition in Special Populations for Nursing

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/nursing/master-degree/master-sports-nutrition-special-populations-nursing

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01

Introduction

Nutrition is key in improving the performance of professional athletes and para-athletes, and even more so its adaptation to the characteristics of the competition, the season or the presence of diseases such as diabetes. Faced with this reality, TECH offers nursing professionals the most updated knowledge in this area, so that they can offer first level clinical assistance based on the latest scientific evidence on the care of vegan and vegetarian athletes, nutritional considerations in the return to competition or in Special Populations. To this end, it has innovative multimedia content, 100% online, which can be accessed 24 hours a day from any electronic device with an Internet connection.



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Update your knowledge of Sports Nutrition with this Master's Degree and incorporate the latest advances in your daily clinical practice”

Physical activity is essential to maintain a correct state of physical and mental health. A base that must necessarily be accompanied by an adequate diet. All this is even more necessary in athletes and para-athletes who face high demands, where it is required to be at 100% to obtain competitive success. To this scenario must be added the population with special characteristics, such as pregnant women and sportswomen, athletes with diabetes or vegans, who require a much more precise adaptation of their diet.

In this context, scientific studies conducted in recent years have provided the precise knowledge to incorporate the nutrients, supplements and foods required in Sports Nutrition. Advances that have given an important boost to this area in the last decade, and that is why TECH has decided to create this university qualification that offers the nursing professional the most advanced and recent knowledge of this specialty.

In this way you will have access to the latest information and under the maximum scientific rigor on muscle physiology and metabolic related to exercise, the assessment of the athlete at different times of the season, the approach to the athlete at the time of injury or the of injury or nutrition according to the various sports disciplines. A set of subjects that will be addressed with an advanced and innovative multimedia content, which will allow you to update your knowledge in Sports Nutrition in a much more enjoyable and didactic way.

In addition, the Relearning Method will allow students to progress through the Syllabus in a much more natural way, reducing the long hours of study, that are more frequent in other teaching methods.

TECH offers with this Master's Degree a unique opportunity to update their knowledge through a flexible and convenient qualification. Students only need an electronic device with an Internet connection to access the contents of the study plan whenever they wish. In addition, this academic institution offers the possibility of distributing the teaching load according to the needs of professionals, making this program perfectly compatible with work and/or personal responsibilities.

This **Master's Degree in Sports Nutrition in Special Populations for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Nutrition and Dietetics
- ◆ 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



Learn about the latest scientific evidence on the suitability of the use of Creatine or Omega 3 during the period of injury of the athlete”

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You will be able to deepen in the latest news on the nutritional factors limiting the athlete's performance in cold and hot climates”

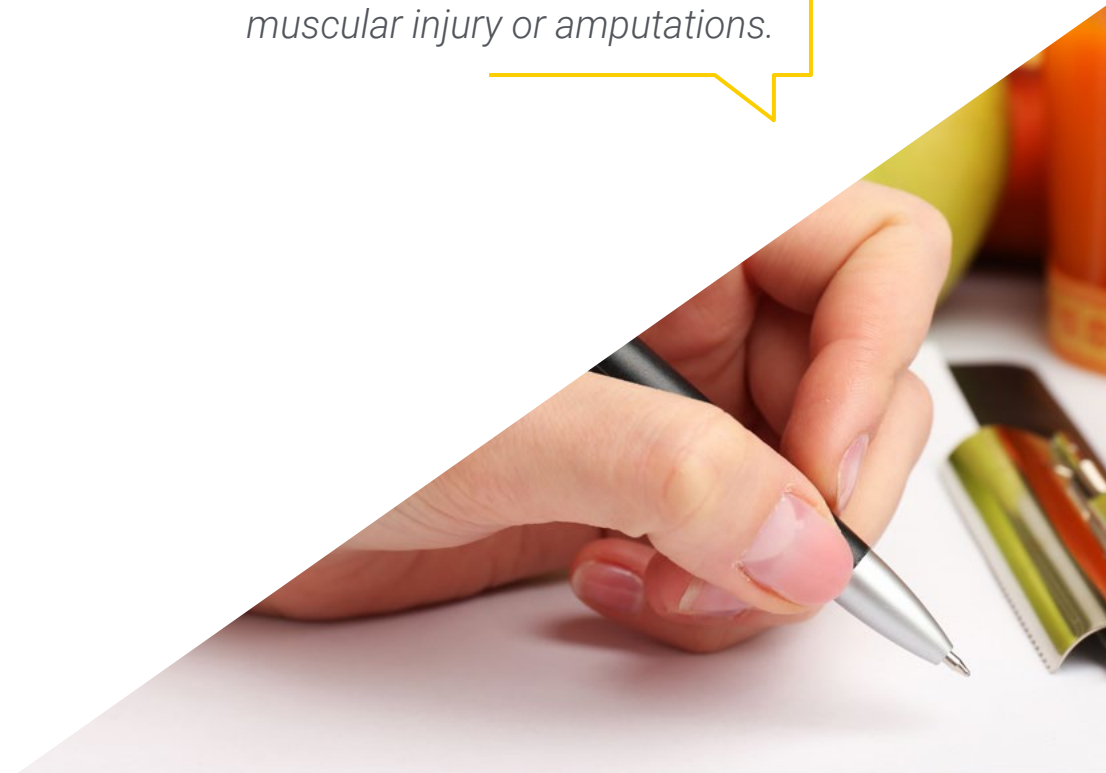
The program's teaching staff includes professionals from the sector who bring to this training the experience of their work, in addition to recognized specialists in the field their work experience into this training, as well as recognized specialists from reference societies and prestigious universities.

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 education programmed to learn in real situations.

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

You have a library of innovative multimedia resources that you can access comfortably from your mobile device, tablet or computer with Internet connection.

It adapts the nutritional characteristics of para-athletes according to whether they suffer from muscular injury or amputations.



02

Objectives

The main objective of this Master's Degree is to broaden and renew the knowledge on Sports Nutrition of Nursing professionals. In order to achieve this goal, TECH provides pedagogical tools in which the latest technology applied to university the latest technology applied to university degrees, and an excellent teaching team with extensive experience in Nutrition and Dietetics. In this way, you will successfully achieve your objectives.





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In just 12 months you will get the update you are looking for on Sports Nutrition and the adaptation to special patients such as pregnant women, diabetics or vegans”



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 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
- ◆ Develop the skills to work in a multidisciplinary environment
- ◆ Enhance the 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 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
- ◆ Gain knowledge about the energetic and nutritional needs of athletes in different pathophysiological situations
- ◆ Specialize in the energy and nutritional needs of athletes in different age and gender specific situations
- ◆ Specialize in dietary strategies for the prevention and treatment of the injured athlete
- ◆ Specialize in the energetic and nutritional needs of child athletes
- ◆ Specialize in the energetic and nutritional needs of Paralympic athletes



Incorporate into your healthcare practice the latest scientific evidence on the latest trends in nutrition and high-performance physical activity.”



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
- ◆ Delve into the understanding of the most important changes that occur in athletes
- ◆ Delve into the mechanisms of energy production according to the type of exercise undertaken
- ◆ Further understanding of the interaction between the different energy systems that make up the muscle energy metabolism

Module 2. Evaluation of the Athlete at Different Times of the Season

- ◆ Perform biochemical interpretation to detect nutritional deficits or over training states
- ◆ Perform the interpretation of the different methods of body composition, to optimize the weight and fat percentage appropriate to the sport practiced
- ◆ Monitor the athlete throughout the season
- ◆ Plan the periods of the season according to their requirements

Module 3. 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 4. Adverse Conditions

- ◆ Differentiate between the main performance limiting factors caused by climate
- ◆ Develop an acclimatization plan appropriate to the situation given
- ◆ Delve into the physiological adaptations due to 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 best tools when combining foods

Module 6. 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
- ◆ Delve into the necessary knowledge to be able 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. Parathletes

- ◆ Delve into the differences between the various categories of parathletes and their physiological-metabolic limitations
- ◆ Determine the nutritional requirements of the different para-sportsmen 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 para-athletes in different sport categories
- ◆ Apply current scientific evidence on nutritional ergogenic aids

Module 8. Sports by Weight Category

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

Module 9. 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 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

03 Skills

The nursing professional who enters this university program will improve their competences in assessing and managing their care skills in sports patients, who require specific adaptations to their diet. For this purpose, it has a syllabus with a theoretical approach, but at the same time practical, which is given by the case studies provided by the magnificent teaching team that teaches this Master's Degree.





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Incorporate into your healthcare practice the latest scientific evidence on the latest trends in nutrition and high-performance physical activity”

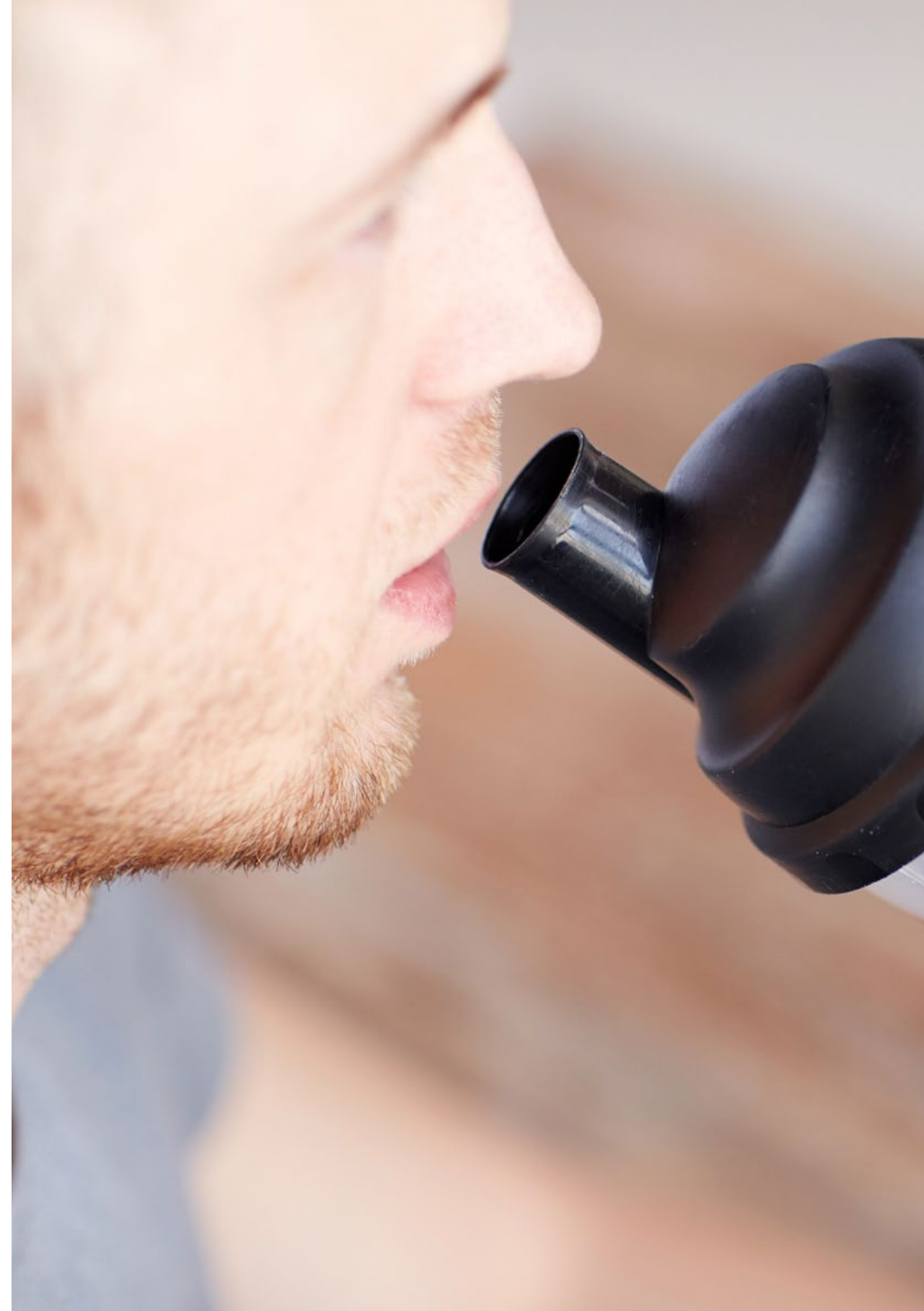


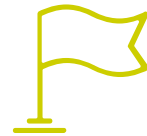
General Skills

- ◆ Apply to their patients the new trends in Sports Nutrition in Special Groups
- ◆ Apply new nutrition trends based on pathologies
- ◆ Investigate the nutritional problems of your patients

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This program will enhance your skills in assisting diabetics who require specific energy needs during the competition period”





Specific Skills

- ◆ Manage and consolidate the initiative and entrepreneurial spirit needed to launch 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
- ◆ Gain knowledge about 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

TECH has brought together in this Master's Degree an excellent management and a teaching staff versed in Nutrition and Dietetics. The great professional experience of the faculty that teaches this degree are a guarantee for students who wish to access a first class program, where they can obtain the latest information from the best. In addition, given their human quality and proximity, the professional will be able to solve any doubts you may have about the syllabus throughout the program.



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You have an excellent team of specialized professionals with extensive professional experience in Nutrition and Dietetics, oriented to athletes of all levels”

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
- ◆ Nutritional Advisor. Impulse Center
- ◆ 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
- ◆ Academic Spanish Academy of Nutrition and Dietetics (AEND)

Professors

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



Dr. Montoya Castaño, Johana

- ◆ Sports Nutritionist
- ◆ Nutritionist. Ministry of Sports of Colombia (Mindeportes)
- ◆ Scientific Advisor. Bionutrition, Medellín
- ◆ Undergraduate Professor of Sports Nutrition
- ◆ Nutritionist Dietician. University of Antioquia
- ◆ Master in Nutrition in Physical Activity and Sport. San Antonio Catholic University of Murcia

Dr. Martínez Noguera, Francisco Javier

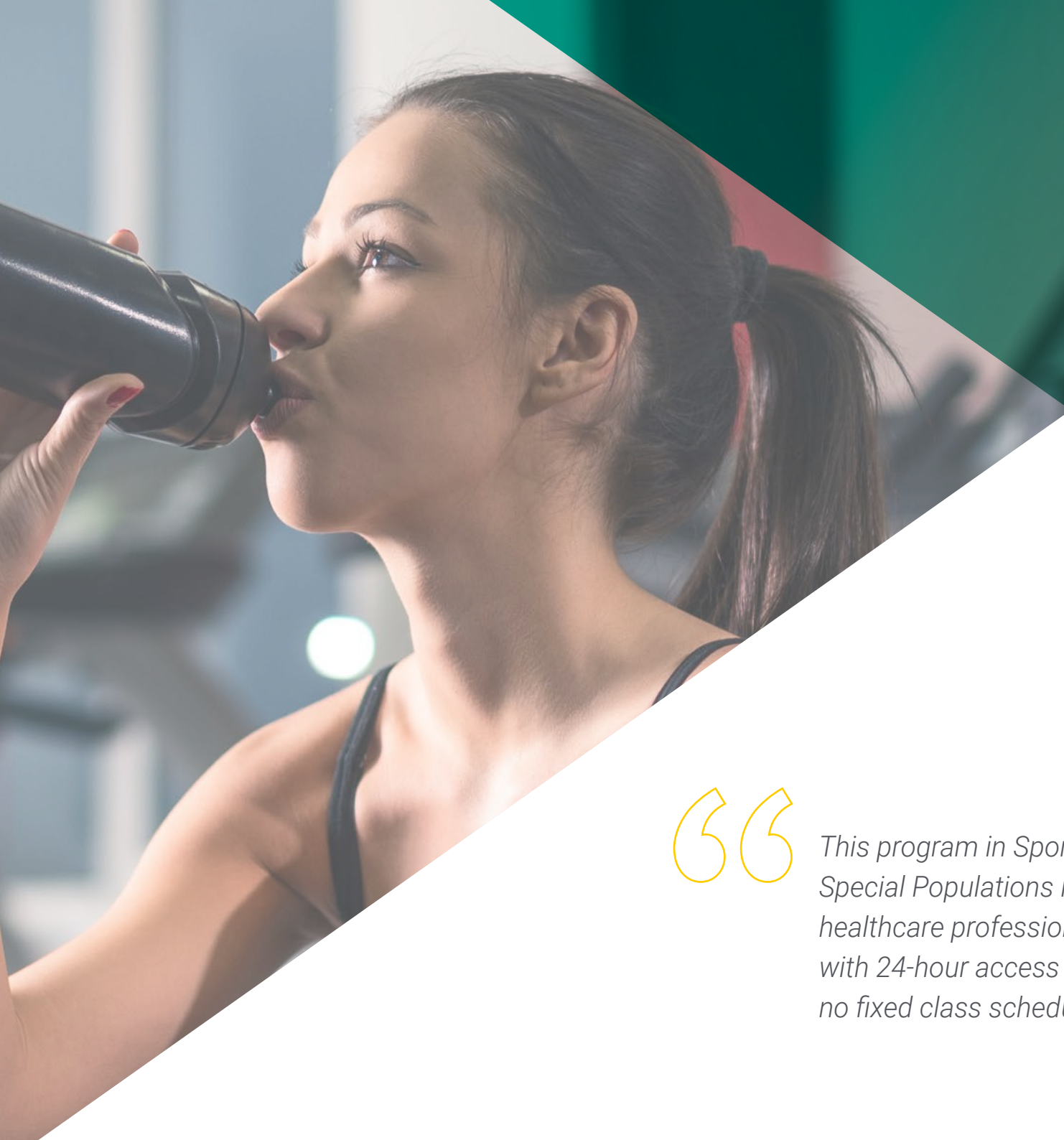
- ◆ Sports nutritionist at CIARD-UCAM
- ◆ Sports nutritionist at Jorge Lledó Physiotherapy Clinic
- ◆ Research assistant at CIARD-UCAM
- ◆ Sports nutritionist at UCAM Murcia Soccer Club
- ◆ Nutritionist at SANO Center
- ◆ Sports nutritionist at UCAM Murcia Basketball Club
- ◆ PhD in Sports Science from 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

05

Structure and Content

The curriculum of this Master's Degree in Sports Nutrition in Special Populations for Nursing has been designed taking into account the most recent developments in this field and with scientific support. Therefore, students who immerse themselves in this program will have access to the most relevant information through multimedia content based on video summaries of each topic, videos in detail, case studies and essential readings. A compendium of material that can be accessed at any time of the day, from any electronic device with an Internet connection. In addition, thanks to the Relearning system, the professional will be able to reduce the long hours of study and memorization.





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This program in Sports Nutrition in Special Populations is tailored to healthcare professionals, providing them with 24-hour access to the content and no fixed class schedules”

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. Vacation 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. Watersports

- 3.1. History of Watersports
 - 3.1.1. Olympics and Major Tournaments
 - 3.1.2. Watersports 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. Physiology in Aquatic Sports
 - 3.4.1. Energy Metabolism
 - 3.4.2. Athlete Biotype
- 3.5. Education
 - 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. Adverse 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 VO₂ Max.
- 4.7. Nutrition and Hydration in Cold Climates
 - 4.7.1. Hydration
 - 4.7.2. Carbohydrates

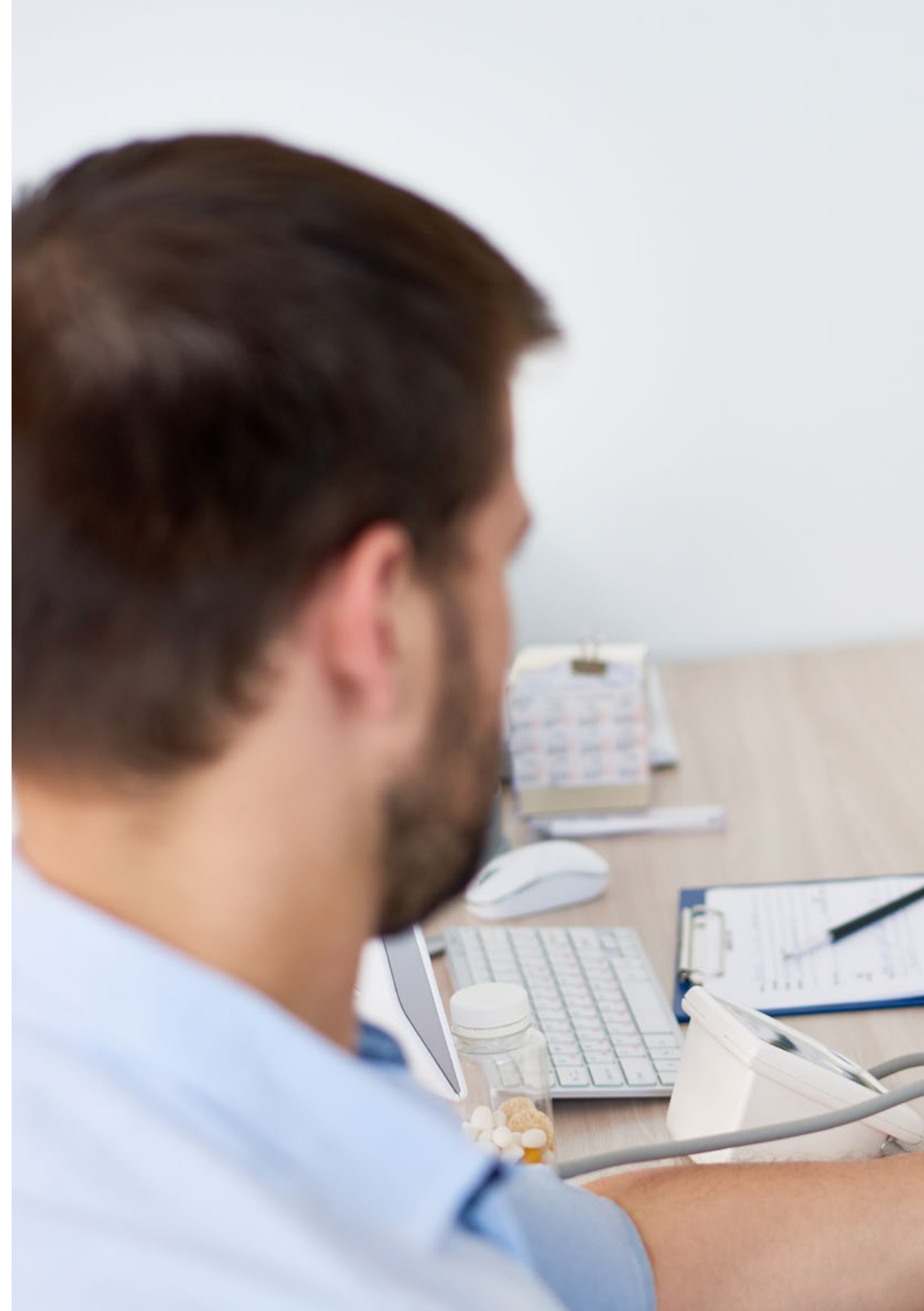
Module 5. Vegetarianism and Veganism

- 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 Vegan 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 Evaluation/Nutritional Shortcomings
 - 5.7.1. Anaemia
 - 5.7.2. Sarcopenia
- 5.8. Vegan vs. Omnivorous Food
 - 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. The 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. Parathletes

- 7.1. Classification and Categories in Parathletes
 - 7.1.1. What is a Parathlete?
 - 7.1.2. How are Parathletes Classified?
- 7.2. Sports Science in Parathletes
 - 7.2.1. Metabolism and Physiology
 - 7.2.2. Biomechanics
 - 7.2.3. Psychology
- 7.3. Energy Requirements and Hydration in Parathletes
 - 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 Parathletes 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 Parathletes
 - 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 Parathletes 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 and Asperger, Phenylketonuria
- 7.8. Body Composition in Parathletes
 - 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 Parathletes
 - 7.9.2. Micronutrient Deficiencies in Parathletes
- 7.10. Ergogenic Aids
 - 7.10.1. Potentially Beneficial Supplements for Parathletes
 - 7.10.2. Adverse Effects on Health and Contamination and Doping Problems Due to the Intake of Ergogenic Aids

Module 8. Sports by Weight Category

- 8.1. Characteristics of the Main Sports by Weight Category
 - 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. Precompetition
 - 8.6.1. Peak Week
 - 8.6.2. Before Weighing
- 8.7. Precompetition
 - 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 Population Groups

- 9.1. Nutrition in the Female Athlete
 - 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 the Pregnant Female Athlete
 - 9.4.1. Energy Requirements
 - 9.4.2. Micronutrients
- 9.5. The Effects of Physical Exercise on the Child Athlete
 - 9.5.1. Strength Training
 - 9.5.2. Endurance Training
- 9.6. Nutritional Education in the Child Athlete
 - 9.6.1. Sugar
 - 9.6.2. Eating Disorders
- 9.7. Nutritional Requirements in the Child Athlete
 - 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 the Older Athlete
 - 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. The 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 Period of Injury
- 10.5. Macronutrient Intake during the Period of Injury
 - 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 Period of Injury
 - 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

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.



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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 Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



The nurse 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.

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 have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical 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 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 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.



Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, 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 them as many times as you want.



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 suggesting that observing third-party experts can be useful.
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

This Master's Degree in Sports Nutrition in Special Populations for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Master's Degree issued by TECH Global University.





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

This private qualification will allow you to obtain a **Master's Degree diploma in Sports Nutrition in Special Populations for Nursing** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Sports Nutrition in Special Populations for Nursing**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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



Master's Degree

Sports Nutrition in Special Populations for Nursing

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Master's Degree

Sports Nutrition in Special Populations for Nursing

