## Hybrid Professional Master's Degree Sports Nutrition for Nursing





## Hybrid Professional Master's Degree Sports Nutrition for Nursing

Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h. Website: www.techtitute.com/in/nursing/hybrid-professional-master-degree/hybrid-professional-master-degree-sports-nutrition-nursing

## Index

01	02	03	04	
Introduction	Why Study this Hybrid Professional Master's Degree?	Objectives	Skills	
p. 4	р. 8	p. 12		p. 18
	05	06	07	
	Course Management	Educational Plan	Clinical Internship	
	p. 22	р. 26		p. 32
	08	09	10	
	Where Can I Do the Clinical Internship?	Methodology	Certificate	
	p. 38	p. 42		p. 50

# 01 Introduction

Nutrition is one of the factors that significantly influences the performance of an athlete, whether in the preparation phase of a high-level competition or in a recovery process after an injury. The comprehensive advice and follow-up of the nursing professional in the nutritional strategy are, therefore, key to the athlete's success. This is the reason for the creation of this degree, which offers graduates the most up-to-date information on sports nutrition from expert professionals with experience in the world of sports. This is the reason for the creation of this degree, which offers graduates the most up-to-date information on sports nutrition from expert professionals with experience in the world of sports. This is the reason for the creation of this degree, which offers graduates the most up-to-date information on sports nutrition from expert professionals with experience in the world of sports. Likewise, once the students have completed the 100% online theoretical stage, they will spend 3 weeks in a center, where they will be able to broaden their knowledge with professionals in the sector and obtain the degree in a maximum of 12 months.

GG A Hy that

A Hybrid Professional Master's Degree that will allow you to be up to date in Sports Nutrition in only 12 months"

## tech 06 | Introduction

Nutrition is becoming more and more relevant in the sports field due to the positive effects that a proper dietary strategy generates in the athlete's performance. For this reason, clubs and athletes are increasingly including professionals in their teams to advise them and establish dietary guidelines according to the competition or physical situation in which they find themselves.

A nutritional preparation that has the same weight as the physical exercises themselves. That is why it is necessary for nursing professionals to be constantly up to date on nutrition and energy needs according to the characteristics of the athlete and the phase in the sports practice in which they are. In this line, TECH offers to specialists this Hybrid Professional Master's Degree in Sports Nutrition for Nursing, which aims to provide the latest information in this field from the hand of a highly qualified teaching team with extensive experience in the health and sports world.

A program that consists of a theoretical stage taught exclusively online and in which the graduate will delve into the new food trends (Probiotics, Prebiotics and Synbiotics), in the assessment of the nutritional status and diet of the athlete, as well as the psychological aspects that can influence the athlete. For this purpose, it has technological material in which the latest technology applied to university teaching has been used.

Likewise, once the updating of theoretical knowledge is completed, students will culminate this university degree with a 3-week stay in a center where they will be able to apply the information received in this blended Master's Degree in a more direct way.

The nurse is, therefore, facing an excellent opportunity to be up to date in Sports Nutrition through a program taught in 100% online mode and whose content can be accessed comfortably. All you need is an electronic device (computer, tablet or cell phone) with an Internet connection to access, at any time, the syllabus hosted in the Virtual Campus. With no classroom attendance or fixed class schedules, this Hybrid Professional Master's Degree is ideal for those professionals seeking to update their knowledge in a way that is compatible with their work and/or personal responsibilities.

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

- Development of more than 100 clinical cases presented by Nutrition professionals with expertise in nutritional care of high-level sport
- 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
- Comprehensive systematized action plans for the of the Health Sector
- Presentation of practical workshops on Clinical Nutrition
- Algorithm-based interactive learning system for decision-making in the situations that are presented to the student
- Practical clinical guides on approaching different pathologies
- Special emphasis on trends in nutrition and new pathologies
- All of this will be complemented by 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
- Furthermore, you will be able to carry out a clinical internship in one of the best centers on the in one of the best hospital centers

Access a program that will show you the latest information on organic food and its inclusion in the diet of athletes"

### Introduction | 07 tech

All you need is an electronic device with an Internet connection to view the content of this program at any time"

In this proposal for a Hybrid Professional Master's Degree, the program is aimed at up to date nursing professionals who perform their functions in high performance centers, clinical or hospital centers, and who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge in nursing practice, and the theoretical-practical elements will facilitate the up to date of knowledge and will allow decision making in patient management.

Thanks to its multimedia content developed with the latest educational technology, they will allow the nursing professional a situated and contextual learning, that is to say; a simulated environment that will provide an immersive learning 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. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will be able to go deeper into the latest ergogenics and current anti-doping regulations at any time.

It reduces the long hours of study and memorization thanks to the Relearning system used by TECH in all its degrees.

## 02 Why Study this Hybrid Professional Master's Degree?

In an educational market plagued with professional trainings, choosing the one that best suits your needs is not an easy task. However, considering the quality and timeliness of the content, the support of professional experts from a specialized tutoring and that it is also based on theoretical study with a practical face-to-face stay is only possible thanks to TECH. In this academic space, professionals will find everything they need to improve their daily clinical practice and their skills in the care of sports patients, who are looking for the best nutritional advice. Thanks to this Hybrid Professional Master's Degree, you will reach the level of excellence in only 12 months with 3 weeks of face-to-face stay in a reference clinical center. In this way, they will be able to put into practice the knowledge obtained in the proposed study plan.

Why Study this Hybrid Professional Master's Degree? | 09 tech



Take advantage of the exclusive opportunity to enter real clinical environments and maximum demand to delve into, hand in hand with the best specialists, in the latest advances in Time Limited Psychotherapy Enroll now"

## tech 10 | Why Study this Hybrid Professional Master's Degree?

#### 1. Updating from the Latest Technology Available

The role of the nurse in an area has evolved. For this reason, TECH has developed this program, with the objective of bringing the professional closer to the most diverse cases of patients interested in improving their sports performance through nutrition. To do so, the nurse will enter a state-of-the-art clinical environment, with access to the latest technology and specialized technical staff.

#### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

The student will never be alone, because TECH will select a tutor who will accompany their throughout the process, directly at the clinical center where the practical training will take place. In addition, you will work hand in hand with a multidisciplinary team that will integrate you in the activities corresponding to this program.

#### 3. Entering First-Class Clinical Environments

TECH carefully selects all available centers for Internship Programs. Thanks to this, the nursing professional will have guaranteed access to a prestigious clinical environment in the field of and the Sports Nutrition Laboratory. In this way, you will be able to see the day-to-day work of a demanding, rigorous and exhaustive sector, always applying the latest theses and scientific postulates in its work methodology.





## Why Study this Hybrid Professional Master's Degree? | 11 tech

#### 4. Combining the Best Theory with State-of-the-Art Practice

TECH values the Practical Training of the professional in this program, giving the nurse the possibility to enter an advanced clinical environment, with the necessary technical resources to expand their skills in Sports Nutrition. The entire program is developed over 12 months, the most agile and dynamic system, adjusted to your needs.

#### 5. Expanding the Boundaries of Knowledge

With TECH there are no frontiers for acquiring knowledge. From its maximum expression of updating, it has selected spaces where the nursing professional can develop a face-toface stay where they will put into practice everything they know about Sports Nutrition. Therefore, you will enjoy a unique growth experience for your intellectual background.

**66** You will have full practical immersion at the center of your choice"

# 03 **Objectives**

The design of the program of this Hybrid Professional Master's Degree will allow students in just 12 months to achieve the up to date knowledge they are looking for in Sports Nutrition. This will be possible thanks to the multimedia didactic resources and the specialized teaching team that is part of this degree program. In addition, the professional will have a practical stage that will bring them even closer to the current reality in this field of sports.

You will learn about the techniques currently used for the nutritional evaluation of athletes and the adaptation of their diet"

## tech 14 | Objectives



## **General Objective**

• The general objective of the Hybrid Professional Master's Degree in Sports Nutrition for Nurses is to provide students with knowledge of the latest trends in Nutrition, both for the health care of healthy athletes and those with pathologies. In addition, you will obtain up to date knowledge that will allow you to promote strategies according to the patient's characteristics and the sport discipline practiced



## Objectives | 15 tech





### **Specific Objectives**

#### Module 1. New Developments in Food

- Analyze the different methods for assessing nutritional status
- Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological, and pharmacological data in the patient's nutritional assessment and dietary-nutritional treatment

#### Module 2. Current Trends in Nutrition

- Early detection and evaluation of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- Describe the composition and utilities of new foods

#### Module 3. Assessment of Nutritional Status and Diet. Practical Application

- Explain the different techniques and products of basic and advanced nutritional support related to the nutrition of the patient
- Explain the correct use of ergogenic aids

#### Module 4. Sports Nutrition

- Explain the current anti-doping regulations
- Identify psychological disorders related to the practice of sport and nutrition

#### Module 5. 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
- To delve into the mechanisms of energy production based on the type of exercise performed
- Further understanding of the interaction between the different energy systems that make up the muscle energy metabolism

## tech 16 | Objectives

#### Module 6. 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 7. 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 8. Nutrition for Functional Recovery and Rehabilitation

- Approach the concept of integral nutrition as a key element in the rehabilitation and functional recovery process
- Distinguish the different structures and properties of both macronutrients and micronutrients
- Prioritize the importance of both water intake and hydration in the recovery process
- Analyze the different types of phytochemicals and their essential role in improving the state of health and regeneration of the organism

## Module 9. Nutrition, Health and Disease Prevention: Current Issues and Recommendations for the General Population

- Analyze patient's eating habits, as well as their problems and motivation
- Up to date nutritional recommendations based on scientific evidence for their application in clinical practice
- Prepare for the design of nutritional education strategies and patient care





## Objectives | 17 tech

## Module 10. Assessment of Nutritional Status and Calculation of Personalized Nutritional Plans, Recommendations and Monitoring

- Adequate assessment of the clinical case, interpretation of causes and risks
- Customized calculation of nutritional plans, taking into account all individual variables
- Draw up nutritional plans and models in order to provide comprehensive and practical recommendations

The case studies provided by the specialists The teachers this program will show you methodologies and concepts that can be integrated in your daily practice"

## 04 **Skills**

During the course of this university degree, the specialist will enhance his or her competencies and skills to be able to establish nutritional guidelines for athletes, taking into account the latest and most current information in this field. In this way, it will fulfill its role of advising and monitoring athletes, both high performance and amateur. The practical case studies provided by the experts who teach this degree will serve to bring real cases closer and integrate this methodology into the usual practice of the nursing professional.

With this program you will be able to enhance your competencies and skills in the nutritional care of athletes with pathologies and in the recovery phase"

## tech 20 | Skills



**General Skills** 

- Apply new trends in Sports Nutrition with their Patients
- Apply the new trends in nutrition depending on the adult's pathologies
- Investigate the nutritional problems of your patients

**666** Through this program you will be able to up to date your knowledge in Sports Nutrition, and become a skilled nurse who will excel in modern clinical settings"



## Specific Skills

- Assess patients' nutritional status
- Identify patients' nutritional problems and apply the most appropriate treatments and diets in each case
- Know food compositions, identify their utilities and add them to the diets of patients who need them
- Know the anti-doping rules
- Seek help for patients with psychological disorders related to nutrition and the practice of sports
- Be up to date on food safety and be aware of potential food hazards
- Identify the benefits of the Mediterranean diet
- Identify athletes' energy needs and provide them with appropriate diets

# 05 Course Management

In its maxim of offering students a quality education within everyone's reach, TECH has brought together in this Hybrid Professional Master's Degree in Sports Nutrition for Nursing an excellent teaching team that stands out for its experience in the care of high-level competitive sportsmen and women. Its extensive knowledge is also evident in the content that the nursing professional will have access to, 24 hours a day, from any device with an internet connection.

Boost your academic career with leading professionals and acquire the knowledge and skills you need to thrive in the field of hepatology"

## tech 24 | Course Management

#### Management



### Dr. Pérez de Ayala, Enrique

- Head of the Sports Medicine Department at La Policlinica Gipuzkoa
- Degree in Medicine from the Autonomous University of Barcelona
- Master's Degree in Evaluation of Bodily Injury
- Expert in Biology and Sports Medicine from the University Pierre et Marie Curie
- Former head of the Sports Medicine Deoartment of the Real Sociedad de Futbol
- Member of: Spanish Association of Football Team Doctors, Spanish Federation of Sports Medicine, Spanish Society of Aerospace Medicine

### Professors

#### Ms. Urbeltz, Uxue

- BPX Instructor, Patronato de Deportes de San Sebastian
- Dietician in Policlínica Gipuzkoa
- Diploma in Dietetics and Nutrition
- Degree in Food Process and Product Innovation Engineering from the Public University of Navarra
- Online Postgraduate Course in Microbiota by Regenera
- Certified in Anthropometrist Level I and II by the Internacional Society for the Advancement of Kinanthropometry(ISAK)

#### Ms. Aldalur Mancisidor, Ane

- Dietitian Specializing in Plant-Based Eating
- Degree in Nursing
- Diploma TECHNIQUES in Dietetics and Nutrition
- Expert in Eating Disorders and Sports Nutrition
- Part of the dietetics office the Basque Health Service

## 06 Educational Plan

This academic institution uses the Relearning system, based on the reiteration of content, in all its program. Thanks to this method, students who enter this Hybrid Professional Master's Degree will be able to delve in a much more agile and dynamic way by the latest trends in food and nutrition, the methods applied for the assessment of the athlete or dietary planning adapted to sports modalities. In addition, video summaries, detailed videos, diagrams or complementary readings are available to the graduate, which will further facilitate the updating of knowledge.



Do you want to be part of the healthcare team of large clubs? Get into this university degree and update your knowledge in Sports Nutrition"

#### Module 1. New Developments in Food

- 1.1. Molecular Foundations of Nutrition
- 1.2. Update on Food Composition
- 1.3. Food Composition Tables and Nutritional Databases
- 1.4. Phytochemicals and Non-Nutritive Compounds
- 1.5. New Food
  - 1.5.1. Functional Nutrients and Bioactive Compounds
  - 1.5.2. Probiotics, Prebiotics, and Synbiotics
  - 1.5.3. Quality and Design
- 1.6. Organic food
- 1.7. Transgenic Foods
- 1.8. Water as a Nutrient
- 1.9. Food Safety
  - 1.9.1. Physical Hazards
  - 1.9.2. Chemical Hazards
  - 1.9.3. Microbiological Hazards
- 1.10. New labelling and consumer information
- 1.11. Phytotherapy Applied to Nutritional Pathologies

#### Module 2. Current Trends in Nutrition

- 2.1. Nutrigenetics
- 2.2. Nutrigenomics
  - 2.2.1. Fundamentals
  - 2.2.2. Methods
- 2.3. Immunonutrition
  - 2.3.1. Nutrition-Immunity Interactions
  - 2.3.2. Antioxidants and Immune Function
- 2.4. Physiological Regulation of Feeding. Appetite and Satiety
- 2.5. Psychology and Nutrition
- 2.6. Nutrition and Sleep
- 2.7. Update on Nutritional Objectives and Recommended Intakes
- 2.8. New Evidence on the Mediterranean Diet

### Module 3. Assessment of Nutritional Status and Diet. Practical Application

- 3.1. Bioenergy and Nutrition
  - 3.1.1. Energy Needs
  - 3.1.2. Methods of Assessing Energy Expenditure
- 3.2. Assessment of Nutritional Status
  - 3.2.1. Body Composition Analysis
  - 3.2.2. Clinical Diagnosis. Symptoms and Signs
  - 3.2.3. Biochemical, Hematological and Immunological Methods
- 3.3. Intake Assessment
  - 3.3.1. Methods for Analyzing Food and Nutrient Intake
  - 3.3.2. Direct and Indirect Methods
- 3.4. Update on Nutritional Requirements and Recommended Intakes
- 3.5. Nutrition in a Healthy Adult. Objectives and Guidelines. Mediterranean Diet
- 3.6. Nutrition in Menopause
- 3.7. Nutrition in the Elderly

### Module 4. Sports Nutrition

- 4.1. Physiology of Exercise
- 4.2. Physiological Adaptation to Different Types of Exercise
- 4.3. Metabolic Adaptation to Exercise. Regulation and Control
- 4.4. Assessing Athletes' Energy Needs and Nutritional Status
- 4.5. Assessing Athletes' Physical Ability
- 4.6. Nutrition in the Different Phases of Sports Practice
  - 4.6.1. Pre-Competition
  - 4.6.2. During
  - 4.6.3. Post-Competition
- 4.7. Hydration
  - 4.7.1. Regulation and Needs
  - 4.7.2. Types of Beverages
- 4.8. Dietary Planning Adapted to Different Sports
- 4.9. Ergogenic Aids and Current Anti-Doping Regulations
  - 4.9.1. AMA and AEPSAD Recommendations

## Educational Plan | 29 tech

- 4.10. Nutrition in Sports Injury Recovery
- 4.11. Psychological Disorders Related to Practising Sport
  - 4.11.1. Eating Disorders: Bigorexia, Orthorexia, Anorexia
  - 4.11.2. Fatigue Caused by Overtraining
  - 4.11.3. The Female Athlete Triad
- 4.12. The Role of the Coach in Sports Performance

#### Module 5. Muscle and Metabolic Physiology Associated with Exercise

- 5.1. Cardiovascular Adaptations Related to Exercise
  - 5.1.1. Increased Systolic Volume
  - 5.1.2. Decreased Heart Rate
- 5.2. Ventilatory Adaptations Related to Exercise
  - 5.2.1. Changes in the Ventilatory Volume
  - 5.2.2. Changes in Oxygen Consumption
- 5.3. Hormonal Adaptations Related to Exercise
  - 5.3.1. Cortisol
  - 5.3.2. Testosterone
- 5.4. Muscle Structure and Types of Muscle Fibers
  - 5.4.1. Muscle Fiber
  - 5.4.2. Type I Muscle Fiber
  - 5.4.3. Type II Muscle Fibers
- 5.5. The Concept of Lactic Threshold
- 5.6. ATP and Phosphagen Metabolism
  - 5.6.1. Metabolic Pathways for ATP Resynthesis during Exercise
  - 5.6.2. Phosphagen Metabolism
- 5.7. Carbohydrate Metabolism
  - 5.7.1. Carbohydrate Mobilization during Exercise
  - 5.7.2. Types of Glycolysis
- 5.8. Lipid Metabolism
  - 5.8.1. Lipolysis
  - 5.8.2. Fat Oxidation during Exercise
  - 5.8.3. Ketone Bodies

- 5.9. Protein Metabolism
  - 5.9.1. Ammonium Metabolism
  - 5.9.2. Amino Acid Oxidation
- 5.10. Mixed Bioenergetics of Muscle Fibers
  - 5.10.1. Energy Sources and their Relation to Exercise
  - 5.10.2. Factors Determining the Use of One or Another Energy Source during Exercise

#### Module 6. Vegetarianism and Veganism

- 6.1. Vegetarianism and Veganism in the History of Sport
  - 6.1.1. The Beginnings of Veganism in Sport
  - 6.1.2. Vegetarian Athletes Today
- 6.2. Different Types of Vegan Food
  - 6.2.1. The Vegan Athlete
  - 6.2.2. The Vegetarian Athlete
- 6.3. Common Errors in the Vegan Athlete
  - 6.3.1. Energy Balance
  - 6.3.2. Protein Consumption
- 6.4. Vitamin B12
  - 6.4.1. B12 Supplementation
  - 6.4.2. Bioavailability of Spirulina Algae
- 6.5. Protein Sources in the Vegan/Vegetarian Diet
  - 6.5.1. Protein Quality
  - 6.5.2. Environmental Sustainability
- 6.6. Other Key Nutrients in Vegans
  - 6.6.1. Conversion of ALA to EPA/DHA
  - 6.6.2. Fe, Ca, Vit-D and Zn
- 6.7. Biochemical Evaluation/Nutritional Shortcomings
  - 6.7.1. Anaemia
  - 6.7.2. Sarcopenia
- 6.8. Vegan Diet vs. Omnivorous Diet
  - 6.8.1. Evolutionary Food
  - 6.8.2. Current Food

## tech 30 | Educational Plan

6.9. Ergogenic Aids

6.9.1. Creatine

- 6.9.2. Vegetable Protein
- 6.10. Factors that Decrease Nutrient Absorption
  - 6.10.1. High Fiber Intake
  - 6.10.2. Oxalates

#### Module 7. Different Stages or Specific Population Groups

- 7.1. Nutrition in the Female Athlete
  - 7.1.1. Limiting Factors
  - 7.1.2. Requirements
- 7.2. Menstrual Cycle
  - 7.2.1. Luteal Phase
  - 7.2.2. Follicular Phase
- 7.3. Triad
  - 7.3.1. Amenorrea
  - 7.3.2. Osteoporosis
- 7.4. Nutrition in the Pregnant Female Athlete
  - 7.4.1. Energy Requirements
  - 7.4.2. Micronutrients
- 7.5. The Effects of Physical Exercise on the Child Athlete
  - 7.5.1. Strength Training
  - 7.5.2. Endurance Training
- 7.6. Nutritional Education in the Child Athlete
  - 7.6.1. Sugar
  - 7.6.2. Eating Disorders
- 7.7. Nutritional Requirements in the Child Athlete
  - 7.7.1. Carbohydrates
  - 7.7.2. Proteins
- 7.8. Changes Associated with Aging
  - 7.8.1. % Body Fat
  - 7.8.2. Muscle Mass

- 7.9. Main Problems in the Older Athlete
  - 7.9.1. Joints
  - 7.9.2. Cardiovascular Health
- 7.10. Interesting Supplements for Older Athletes 7.10.1. Whey Protein
  - 7.10.1. Whey Prote
  - 7.10.2. Creatine

#### Module 8. Nutrition for Functional Recovery and Rehabilitation

- 8.1. Integral Nutrition as a Key Element in Injury Prevention and Recovery
- 8.2. Carbohydrates
- 8.3. Proteins
- 8.4. Fats
  - 8.4.1. Saturation
  - 8.4.2. Unsaturated
    - 8.4.2.1. Monounsaturated
    - 8.4.2.2. Polyunsaturated
- 8.5. Vitamins
  - 8.5.1. Water soluble
  - 8.5.2. Fat soluble
- 8.6. Minerals
  - 8.6.9. Macrominerals
  - 8.6.2. Microminerals
- 8.7. Fibre
- 8.8. Water:
- 8.9. Phytochemicals
  - 8.9.1. Phenols
  - 8.9.2. Tioles
  - 8.9.3. Terpenes
- 8.10. Food Supplements for Prevention and Functional Recovery

## Educational Plan | 31 tech

## **Module 9.** Nutrition, Health and Disease Prevention: Current Issues and Recommendations for the General Population

- 9.1. Feeding Habits in the Current Population and Health Risks
- 9.2. Mediterranean and Sustainable Diet
  - 9.2.1. Recommended Dietary Pattern
- 9.3. Comparison of Dietary Patterns or "Diets"
- 9.4. Nutrition in Vegetarians
- 9.5. Childhood and Adolescence
  - 9.5.1. Nutrition, Growth and Development
- 9.6. Adults
  - 9.6.1. Nutrition for the Improvement of Quality of Life
  - 9.6.2. Prevention
  - 9.6.3. Treatment of disease
- 9.7. Pregnancy and Lactation Recommendations
- 9.8. Recommendations in Menopause
- 9.9. Advanced Age
  - 9.9.1. Nutrition in Aging
  - 9.9.2. Changes in Body Composition
  - 9.9.3. Abnormalities
  - 9.9.4. Malnutrition
- 9.10. Nutrition in Athletes

## **Module 10.** Assessment of Nutritional Status and Calculation of Personalized Nutritional Plans, Recommendations and Monitoring

- 10.1. Medical History and Background
  - 10.1.1. Individual Variables Affecting Nutritional Plan Response
- 10.2. Anthropometry and Body Composition
- 10.3. Assessment of Eating Habits
  - 10.3.1. Nutritional Assessment of Food Consumption

- 10.4. Interdisciplinary Team and Therapeutic Circuits
- 10.5. Calculation of Energy Intake
- 10.6. Calculation of Recommended Macro- and Micronutrient Intakes
- 10.7. Quantity and Frequency of Food Consumption Recommendations 10.7.1. Dietary Patterns
  - 10.7.2. Education
  - 10.7.3. Distribution of Daily Feedings
- 10.8. Diet Planning Models
  - 10.8.1. Weekly Menus
  - 10.8.2. Daily Intake
  - 10.8.3. Methodology by Food Exchanges
- 10.9. Hospital Nutrition
  - 10.9.1. Dietary Models
  - 10.9.2. Decision Algorithms
- 10.10. Educational
  - 10.10.1. Psychological Aspects
  - 10.10.2. Maintenance of Feeding Habits
  - 10.10.3. Discharge Recommendations



This Hybrid Professional Master's Degree will bring you up to date on the latest advances in nutrigenetics and nutrigenomics"

# 07 Clinical Internship

After passing the online theoretical period, the nursing professional will join specialists in the field of Sports Nutrition, in a period of practical training. This activity will take place in a center specialized in the attention and nutritional care of athletes. In it, students will have the option of being able to put into real situations the up to date information they have received during the course of this Hybrid Professional Master's Degree.

S You have the opportunity to enhance your skills in the field of sports nutrition in a 3-week practical stay"

## tech 34 | Clinical Internship

The Practical Training period of this Sports Nutrition for Nurses program consists of a 3-week stay in a leading center for the care and nutritional counseling of athletes. Therefore, from Monday to Friday, students will be together with specialists who will accompany them in this knowledge update.

Thanks to this stay, students will be able to be with real patients and guided by a team of relevant professionals in this field. They will be responsible for indicating the methods and techniques used to improve the athlete's performance or recovery through nutrition.

In this proposal, the activities are aimed at improving skills in the analysis of new foods, their evaluation according to the needs of each patient, as well as the guidelines indicated for the planning of a diet according to the characteristics of the athlete, the discipline they practice and the moment of competition in which they find themselves.

The practical part will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competencies for clinical nursing practice (learning to be and learning to relate).

> You will be able to apply all your knowledge in a reference center specialized in the nutritional care of athletes"



## Clinical Internship | 35 tech

The procedures described below will form the basis of the practical part of the internship, and their implementation is subject to both the suitability of the patients and the availability of Own the center and its workload, with the proposed activities being as follows:

Module	Practical Activity		
New Developments in Food	Participate in the assessment of the specialist on the update of new foods and their composition		
	Assess organic foods to be integrated into the athlete's diet		
	Assessment of transgenic foods and their contribution for each athlete		
	Verify food labeling and informing the consumer		
Current Trends in Nutrition	Perform nutrigenetic analysis		
	To intervene in the nutrigenomics assessment		
	Perform immunonutrition analysis		
	Apply treatment for physiological regulation of feeding. Appetite and Satiety		
	Participate in the analysis of psychology and nutrition with the specialist		
	To assess sleep behavior and activity in the athlete and compare it to his or her performance with his or her performance		
Assessment of Nutritional Status and Diet. Practical Application	Perform bioenergetics and nutrition analysis		
	Check the nutritional status of the patient at different age stages		
	Assessment of daily intake and implementation of necessary dietary adjustments		
	Perform feeding assessment in the healthy adult		
	Execute menopausal feeding evaluation		
Decision-Making in Sports Practice	To verify the physiological and metabolic adaptation to different types of exercise in the athlete		
	Assessing Athletes' Energy Needs and Nutritional Status		
	Accompany the specialist in the evaluation of the athlete's physical capacity		
	Apply analysis of nutrition and hydration in the different phases of sports practice		
	To plan with the specialist the diet adapted to the sports modalities and in the recove of injuries		
	To support the specialist in the evaluation of the athlete in psychological disorders related to his sports practice		



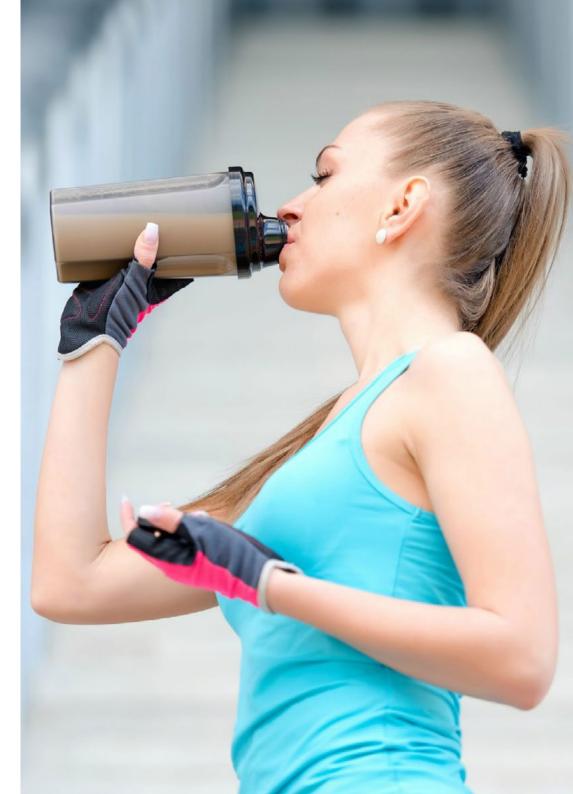
## tech 36 | Clinical Internship

### **Civil Liability Insurance**

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



### **General Conditions for Practical Training**

The general terms and conditions of the internship program agreement shall be as follows:

1. TUTOR: During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE**: If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** the Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION**: Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

## 08 Where Can I Do the Clinical Internship?

This academic institution has carefully selected the companies in which the students will carry out their practical stay, in order for them to successfully achieve their objectives of updating their knowledge in Sports Nutrition. Therefore, during this period, the students will be in a reference center, in charge of enhancing the physical condition of the athletes through food, diet or supplementation. In this scenario, the graduate will be with professionals of the company, who will guide them at all times to achieve their goals.

## Where Can I Do the Clinical Internship? | 39 tech

A practical stay of 3 weeks in which you will complete your knowledge up to date with professional experts in Sports Nutrition"

100

## tech 40 | Where Can I Do the Clinical Internship?

The student will be able to do this program at the following centers:



			The second secon
Hospital HM Regla		Hospital HM Nou Delfos	
Country Spain	City León	Country Spain	City Barcelona
Address: Calle Cardenal Landázuri, 2, 24003, León		Address: Avinguda de Vallcarca, 151, 08023 Barcelona	
Network of private clinics, hospitals and specialized centers distributed throughout Spain.			ospitals and specialized centers proughout Spain.
Related internship programs: - Update on Psychiatric Treatment in Minor Patients		Related internship programs: - Aesthetic Medicine - Clinical Nutrition in Medicine	
	spital evo ficián	New Sario scietonica	Distrito Telefónica Antares
OSPITALES NO		and the second sec	Antares rsing y <sup>de los tuyos</sup>
Hospital HM	Sing Nuevo Belén	Policlínico HM I	Antares rsing <sup>y de los tuyos</sup> Distrito Telefónica
		and the second sec	Antares rsing y <sup>de los tuyos</sup>
Hospital HM Country Spain	Nuevo Belén <sub>City</sub>	Policlínico HM I Country Spain Address: Ronda d	Antares rsing <sup>y de los tuyos</sup> Distrito Telefónica City
Hospital HM Country Spain Address: Calle José S etwork of private clinics, hos	Nuevo Belén City Madrid	Policlínico HM I Country Spain Address: Ronda o 28050 Network of private clinics, ho	rsing y de los tuyos Distrito Telefónica City Madrid de la Comunicación,



Nursina

#### Policlínico HM Gabinete Velázquez

Country

Spain

Country

Spain

City Madrid

Address: C. de Jorge Juan, 19, 1° 28001, 28001, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

> Related internship programs: - Clinical Nutrition in Medicine - Aesthetic Plastic Surgery

Policlínico HM Moraleja

Address: P.º de Alcobendas, 10, 28109,

Alcobendas, Madrid

Network of private clinics, hospitals and specialized centers

distributed throughout Spain.

Related internship programs:

- Rehabilitation Medicine in Acquired Brain Injury Management

City Madrid



#### Policlínico HM Las Tablas

Country City Spain Madrid

Address: C. de la Sierra de Atapuerca, 5, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

> Related internship programs: - Nursing in the Traumatology Department - Diagnosis in Physiotherapy



#### Policlínico HM Sanchinarro

Country	City
Spain	Madrid

Nursing

Address: Av. de Manoteras, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

> Related internship programs: - Gynecological Care for Midwives - Nursing in the Digestive Tract Department



### Where Can I Do the Clinical Internship? | 41 tech





Make the most of this opportunity to surround yourself with expert professionals and learn from their work methodology"

# 09 **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"

## tech 44 | Methodology

#### 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.

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.
- 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.



## tech 46 | Methodology

#### **Relearning Methodology**

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

This university is the first in the world to combine 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.



## Methodology | 47 tech

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

With this methodology we 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.



## tech 48 | Methodology

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.

20%

15%

3%

15%

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.

## Methodology | 49 tech



#### **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.

20%

3%

7%

17%



#### **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.

# 10 **Certificate**

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



66

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

## tech 52 | Certificate

This **Hybrid Professional Master's Degree in Sports Nutrition for Nursing** contains the most complete and up-to-date program on the professional and educational field.

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

In addition to the certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

Title: Hybrid Professional Master's Degree in Sports Nutrition for Nursing Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h.



\*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.

technological university

## Hybrid Professional Master's Degree Sports Nutrition for Nursing

Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h.

## Hybrid Professional Master's Degree Sports Nutrition for Nursing

