

# Hybrid Professional Master's Degree

## Clinical Nutrition



## Hybrid Professional Master's Degree Clinical Nutrition

Modality: Hybrid (Online + Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

Website: [www.techtute.com/us/nutrition/hybrid-professional-master-degree/hybrid-professional-master-degree-clinical-nutrition](http://www.techtute.com/us/nutrition/hybrid-professional-master-degree/hybrid-professional-master-degree-clinical-nutrition)

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# 01

# Introduction

Clinical Nutrition is a very important area in medicine, sometimes being used as part of treatment. In this sense, up-to-date professionals in this field must be available to fulfill the role of prevention and treatment of nutritional problems. The program focused on this labor sector seeks to update professionals to assess and calculate the nutritional requirements in health and disease at any stage of the life cycle, from an approach that combines theory 100% online, with practice in a center of reference in the field. By taking the course, the students are assured of state-of-the-art knowledge that will place them at the forefront of the profession.



For Enteral Use Only

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*Update your knowledge and prepare yourself for the new scenarios in Clinical Nutrition, with this program that offers you the opportunity to combine the theoretical study 100% online with on-site practices in reference clinical centers”*

The study of Nutrition and metabolism in people has become more important considering that food helps to maintain good health. In this sense, Clinical Nutrition has developed a curative approach by trying to provide better nutrition taking into account people's ailments and, on the other hand, it maintains a preventive approach by providing the necessary tools to avoid the development of certain diseases.

Based on an effective theoretical and practical approach, this program will provide the student with a solid knowledge in Clinical Nutrition, in a dynamic way through the use of the most advanced educational technology. Faced with the healthcare and preventive needs of the population in terms of food and health, updating is the essential response of professionals and hospitals.

It will delve into all the topics of competence such as Clinical Nutrition and Hospital Dietetics, new advances in nutrition, nutritional consultation, nutrition in sports practice, nutrition as a treatment in different pathologies and more than twenty topics to highlight and develop the content of this program.

The Hybrid Professional Master's Degree offers the possibility of delving deeper and updating knowledge, with the use of the most current educational technology and practical exercises together with trained technical and human resources teams. It provides a global vision of Clinical Nutrition while focusing on the most important and innovative aspects of adult nutrition.

Once the theoretical part of this program is finished, the students will be able to enjoy a 100% practical stay in a prestigious center where, under the guidance of an expert professional team, they will be able to put into practice everything they have learned. In this way, it strengthens the knowledge in a more effective way and prepares the professional to face the next patients in their professional work.

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

- Development of more than 100 case studies presented by expert professionals in the area of Health Sciences
- 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 health sector problems
- 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
- Additionally, you will be able to carry out an internship in one of the best hospitals of reference:



*Share the experience with practicing healthcare professionals and acquire all the practical and theoretical knowledge to grow personally and professionally"*

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*Add to your online study the internship in a reference center and complete your update in Clinical Nutrition in a unique and highly effective way”*

In this proposal of a Master's Degree, of professional character and hybrid mode, the program is aimed at updating health professionals, who develop their functions in the field of Clinical Nutrition and require a high level of qualification. The contents are based on the latest evidence on the subject, and oriented in an educational way to integrate theoretical knowledge into practice, and the theoretical-practical elements will facilitate knowledge update and decision-making in uncertain environments.

Thanks to multimedia content developed with the latest educational technology, they will allow the Healthcare professionals a situated and contextual learning, i.e., a simulated environment that will provide immersive learning programmed to prepare professionals for real situations. This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*This Hybrid Professional Master's Degree allows training in simulated environments, which provide an immersive update programmed to train for real situations.*

*You will attend real cases in a modern environment where you will put into practice what was developed in the first period and you will verify the importance of these updates.*



02

# Why Study this Hybrid Professional Master's Degree?

This Hybrid Professional Master's Degree course is a unique opportunity that specialists should not miss if they are looking for a program through which they can update their practice, but which, at the same time, adapts to both their needs and to the most demanding requirements of medical practice. In this way, TECH has managed to create an ideal program for this purpose, developed over 1,620 hours in which the graduates will undoubtedly surpass even their most ambitious expectations.



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*Would you like to be updated on new trends in Nutrition in a complete and exhaustive way? If the answer is yes, this Hybrid Professional Master's Degree is the best option to achieve it"*

### 1. Updating from the Latest Technology Available

TECH uses the most sophisticated and innovative educational technology in each of its programs, in order to provide its graduates with the tools that allow them to get the most out of the programs in a comfortable and flexible way. For this reason, when selecting the centers where the internships take place, special emphasis is also placed on this aspect, guaranteeing access to the most cutting-edge clinical equipment available in the field of nutrition.

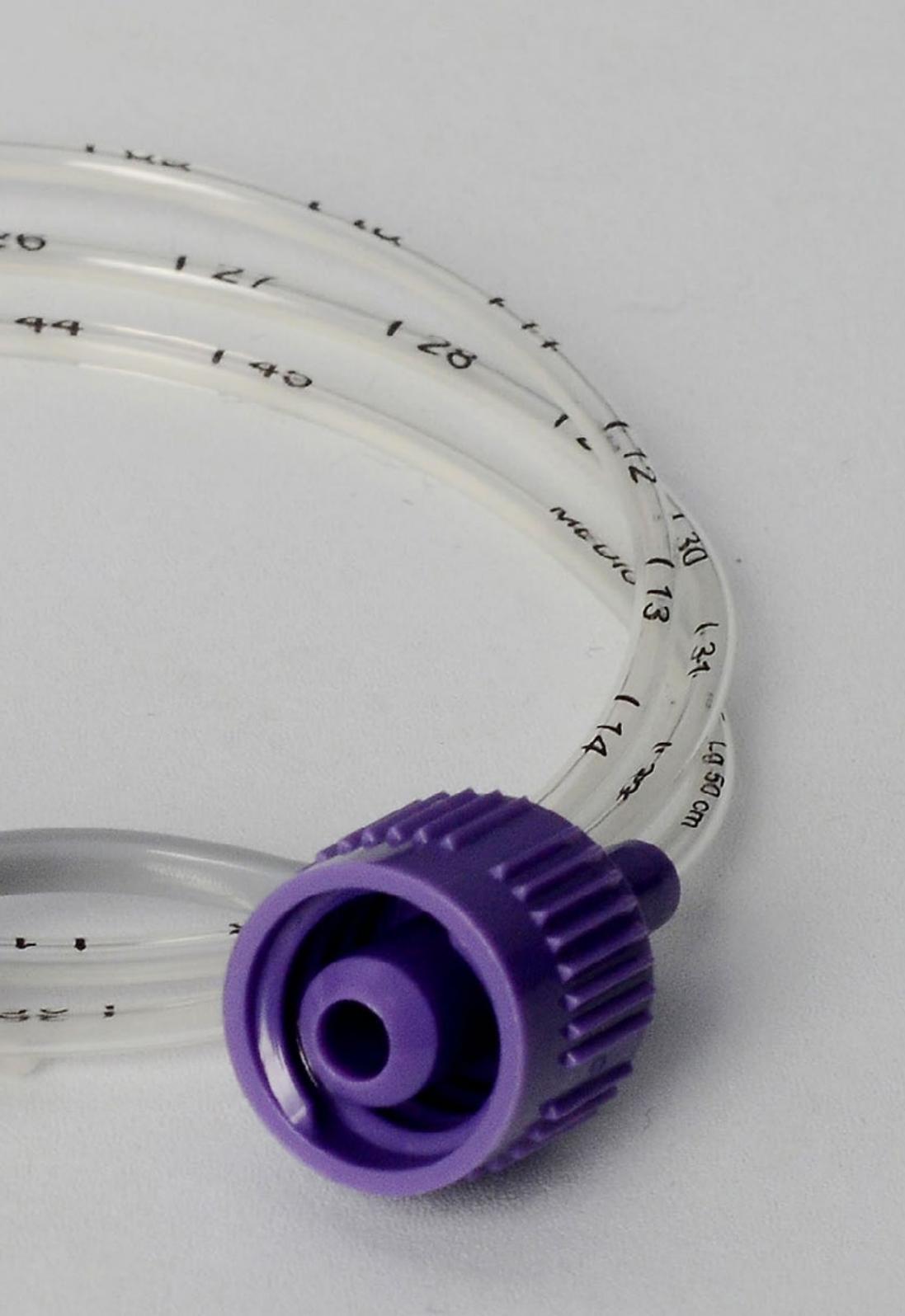
### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

All students who enter this program will be assigned an internship tutor to accompany and guide them during the 120 hours of practical training. In addition, they will become part of a multidisciplinary team in the area of Clinical Nutrition, where they will also find support to get the most out of the experience.

### 3. Entering First-Class Clinical Environments

During the 3 weeks in which this clinical experience takes place, the graduates will have access to hundreds of diverse cases, in which they will have to apply the knowledge previously acquired during the theoretical period. In addition, you will be able to delve into them with the security and guarantee of having the best strategies, as well as the support of a team that will ensure the safety of the professional and the patient.





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

The very complete program of this Hybrid Professional Master's Degree includes a comprehensive plan of studies, ideal for an integral updating of the practice of any graduate. It is, therefore, a unique opportunity to expand their knowledge based on the latest developments in Clinical Nutrition, with the possibility, a posteriori, to apply everything developed with real patients in current environments.

#### **5. Expanding the Boundaries of Knowledge**

TECH's agreement goes beyond national borders. Therefore, the graduate will be able to take the program's practical internship in different parts of the world. Based on this, it is presented as a unique opportunity to live an unparalleled experience that will allow you update your practice at the same time as your culture, soaking up the trends that are setting the current medical trends in different parts of the international scene.



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

# 03

## Objectives

This educational proposal, of a theoretical and practical nature, is designed to update the professional's knowledge and promote strategies to face the new trends in human nutrition both in health and pathological situations through evidence-based medicine. After the program, and the development of the internship in a prestigious center, the student will be able to make global decisions with an innovative perspective and a deep vision of the importance of good nutrition in the treatment and prevention of diseases.



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*With this program you will be able to provide your patients with quality care, based on the latest scientific evidence that guarantees their well-being and safety”*



## General Objective

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- The main objective of this Hybrid Professional Master's Degree in Clinical Nutrition is to promote work strategies based on the practical knowledge of the new trends in Nutrition and its application to the pathologies of both children and adults, where it plays a key role in their therapy. Promoting the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online workshops for simulation and/or specific specialization, and encouraging professional stimulation through continued program training and research

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*With this program you will be able to provide your patients with quality care, based on the latest scientific evidence that guarantees their well-being and safety”*





## Specific Objectives

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### Module 1. New Developments in Food

- ♦ Review the basics of a balanced diet in the different stages of the life cycle, as well as in exercise
- ♦ Assess and calculate nutritional requirements in health and disease at any stage of the life cycle
- ♦ Review the new dietary guidelines, nutritional objectives, and recommended dietary allowances (RDA)
- ♦ Manage food databases and composition tables
- ♦ Acquire skills in reading and understanding new food labeling methods
- ♦ Update the drug-nutrient interaction and its implication in the patient's treatment
- ♦ Incorporate the possibilities of phytotherapy as an adjuvant treatment in clinical practice

### Module 2. Current Trends in Nutrition

- ♦ Update knowledge in nutrigenetics and nutrigenomics
- ♦ Identify the relationship between nutrition and immune status
- ♦ In-depth study of the circadian system as a key factor in nutrition
- ♦ Identify and classify foods, food products, and food ingredients
- ♦ Review the chemical composition of foods, their physicochemical properties, their nutritional value, their bioavailability, their organoleptic characteristics and the modifications they undergo as a result of technological and culinary processes
- ♦ Get up-to-date on the composition and utilities of new foods
- ♦ Evaluate and maintain adequate hygiene and food safety practices, applying current legislation

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

- ♦ 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
- ♦ Predict patients' nutritional risk
- ♦ Manage the different types of nutritional surveys to assess food intake
- ♦ Early detection and evaluation of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- ♦ Review basic aspects of food microbiology, parasitology, and toxicology related to food safety

### Module 4. Nutritional Consultation

- ♦ Review the psychological bases and biopsychosocial factors that affect human eating behavior
- ♦ Acquire teamwork skills as a unit in which professionals and other personnel related to the diagnostic evaluation and treatment of dietetics and nutrition are structured in Solitary or multidisciplinary and interdisciplinary way
- ♦ Know the basics of marketing, market research and clientele that a nutritional practice should manage
- ♦ Delve into the techniques of interviewing and dietary counseling for the patient

### Module 5. Sports Nutrition

- ♦ Evaluate and prescribe physical activity as a factor involved in nutritional status
- ♦ Study the latest developments in exercise physiology
- ♦ Emphasize the importance of good hydration in all sports disciplines
- ♦ Know the most recent AMA and AEPSAD recommendations. BORRAR
- ♦ Treat common eating disorders in sports such as vigorexia, orthorexia or anorexia

### **Module 6. Clinical Nutrition and Hospital Dietetics**

- ♦ Delve into the management of hospital nutrition units
- ♦ Distinguish the different basal and therapeutic diets used in hospital settings
- ♦ Study the interaction between drugs and nutrients

### **Module 7. Nutrition in Digestive System Pathologies**

- ♦ Know the different oral alterations, as well as esophago-gastric alterations
- ♦ Address nutrition in post-surgical syndromes
- ♦ Study common food allergies and intolerances with gastrointestinal impact

### **Module 8. Nutrition in Endocrine-Metabolic Diseases**

- ♦ Explore the etiology, nutrigenetics and nutrigenomics of obesity
- ♦ Delve into the advances in Diabetes Mellitus and hypertension
- ♦ Know the most effective endoscopic and surgical treatments for endocrine-metabolic diseases
- ♦ Update knowledge on dieting and obesity

### **Module 9. Nutrition in Kidney Diseases**

- ♦ Explore glomerular conditions and tubulopathies
- ♦ In-depth study of chronic renal insufficiencies

### **Module 10. Nutrition in Neurological Diseases**

- ♦ Study swallowing disorders
- ♦ Know the most important developments in Parkinson's and Alzheimer's disease
- ♦ In-depth study of cerebrovascular accidents
- ♦ Delve into disabling neuromuscular conditions

### **Module 11. Nutrition in Special Situations**

- ♦ Explore nutrition in the context of metabolic stress
- ♦ Broaden knowledge regarding the treatment of oncology patients
- ♦ Know the role of nutrition in immune-mediated diseases

### **Module 12. Nutrition in Deficiency Diseases**

- ♦ Study hospital malnutrition and fasting cycles
- ♦ Define a framework for action against anemia and hemochromatosis
- ♦ Further understanding of the relationship between diet and oral diseases

### **Module 13. Artificial Nutrition in Adults**

- ♦ Distinguish enteral and parenteral nutrition with their main characteristics
- ♦ Know the advances in home artificial nutrition

### **Module 14. Physiology of Infant Nutrition**

- ♦ Apply Food Science and Nutrition to the practice of pediatric dietetics
- ♦ Update the different educational methods of application in health sciences, as well as communication techniques applicable to food and human nutrition with a special focus on children and adolescents
- ♦ Reflect on the usefulness of the school cafeteria as an educational vehicle
- ♦ Review the relation between physiology and nutrition in the different stages of infant development

- ♦ Analyze the implications of nutrition in the growth process and in the prevention and treatment of different childhood pathologies
- ♦ Identify the repercussion that a pregnant and lactating mother's nutrition has on the intrauterine growth and evolution of new-borns and infants
- ♦ Describe the nutritional requirements in the different periods of childhood

#### **Module 15. Artificial Nutrition in Pediatrics**

- ♦ Explore the general Information about enteral and parenteral nutrition in pediatrics
- ♦ Study nutritional supplements as a fundamental support of the conventional diet
- ♦ Understand the role of probiotics and prebiotics in infant feeding

#### **Module 16. Infant Malnutrition**

- ♦ Develop plans to prevent child malnutrition
- ♦ Address vitamin and trace element deficiencies with modern treatment methods
- ♦ In-depth study of the prevention and nutritional treatment of childhood obesity
- ♦ Know the most relevant psychosocial aspects of malnutrition

#### **Module 17. Childhood Nutrition and Pathologies**

- ♦ Study the role of nutrition in the various pathologies of childhood
- ♦ In-depth study of feeding difficulties and disorders in children
- ♦ Address common disorders such as bulimia and anorexia
- ♦ Delve into the nutrition of autistic, diabetic, oncological or bone disease children

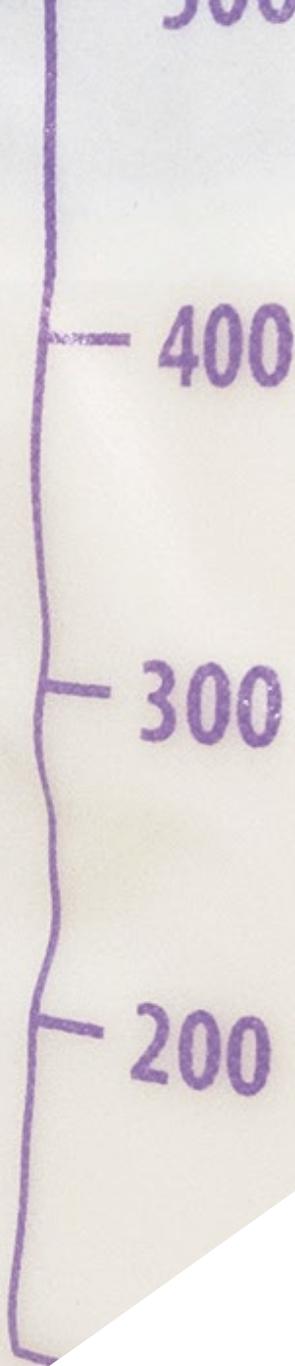


*The Hybrid Professional Master's Degree in Clinical Nutrition will broaden your knowledge and skills, providing greater solidity to your professional profile"*

# 04 Skills

With the Hybrid Professional Master's Degree in Clinical Nutrition, students acquire the necessary skills to act autonomously in adverse situations in the field of health and care of patients with various disorders or pathologies. All this, thanks to an innovative content presented with multimedia teaching resources and an internship in a prestigious center that will enrich and complete the learning process.





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*This program will broaden your vision by incorporating advances in pediatric and adult patient feeding management”*



## General Skills

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- ♦ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ♦ Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the field of study
- ♦ Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- ♦ Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- ♦ Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner





## Specific Skills

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- ♦ Describe balanced nutrition in the different stages of the life cycle ,as well as in exercise
- ♦ Contrast nutritional requirements in health and disease situations at any stage of the life cycle
- ♦ Determine nutritional objectives and recommended daily allowances (RDA)
- ♦ Develop skills in reading and understanding food labeling
- ♦ Design a dietary plan of phytotherapy as an adjuvant treatment
- ♦ Question the different methods of assessing nutritional status
- ♦ Interpret all data in the nutritional assessment of the patient
- ♦ Develop food hygiene practices based on current legislation
- ♦ Design dietary treatment for oral cavity pathologies in adults with special attention to sensory disorders and mucositis
- ♦ Indicate treatment for managing patients with swallowing problems
- ♦ Learn dietary guidelines for adults with chronic kidney failure and on dialysis
- ♦ Determine the role of the intestinal microbiota and its implications in pathologies
- ♦ Apply the different techniques and products of basic and advanced nutritional support related to patient nutrition
- ♦ Explore those patients with nutritional risk or malnutrition
- ♦ Observe and identify obesity, and determine its dietary or surgical treatment
- ♦ Describe the DASH diet and prescribe it as a treatment in cardiovascular disease
- ♦ Discriminate the dietary management of patients with disabling neuromuscular pathology and stroke
- ♦ Analyze the importance of nutrition in childhood growth processes
- ♦ Question nutritional requirements at different stages of childhood
- ♦ Determine how to calculate the dietary needs and risks of child and adolescent athletes
- ♦ Describe current trends in neonatal nutrition
- ♦ Describe how milk banks work
- ♦ Screen children who are at nutritional risk for targeted support
- ♦ Design an assessment and monitoring plan for children with nutritional support
- ♦ Analyze the differences between probiotic and prebiotic foods , and their application in the infant stage
- ♦ Develop correct nutritional support for malnourished children
- ♦ Describe the etiology, repercussions, and treatment of childhood obesity
- ♦ Address the psychological and physiological aspects involved in eating disorders in young children
- ♦ Determine how to manage diabetic children's diet correctly
- ♦ Analyze and determine the nutritional support of pediatric oncological patients in different phases of the disease

05

# Course Management

This program is managed by a team of active specialists in the health area. With an extensive background and reputable knowledge in their area of expertise. The combination of its practical skills with the latest scientific theory makes the program of outstanding quality. A multidisciplinary team that will develop theoretical knowledge in an efficient manner, but, above all, will provide practical knowledge derived from their own experience.





“

*Health professionals with extensive experience select the most up-to-date content, based on real facts to provide you with the best update”*

## Management



### Ms. Auni3n Lavar3as, Mar3a Eugenia

- Pharmacist and Clinical Nutrition Expert
- "Author of the reference book in the field of Clinical Nutrition" "Dietary Management of Overweight in the Pharmacy Office". (Panamericana Medical Publishing House)
- Pharmacist with extensive experience in the public and private sector
- Pharmacist in Valencia Pharmacy
- Pharmacy Assistant in the British pharmacy and health and beauty retail chain Boots, UK
- Degree in Pharmacy and Food Science and Technology. University of Valencia
- Head of Postgraduate Certificate "Dermocosmetics in the Pharmacy Office"



# 06 Educational Plan

The syllabus has been designed under an exhaustive analysis of the expert professionals who direct this program. Based on the current need of the health sector to provide fast and effective solutions to the patient. In this way, a plan of studies divided into 17 modules has been established which offer a broad perspective of Clinical Nutrition. The student will be able to review real cases that could be faced in the daily development of their profession, acquiring a practical, realistic and complete vision of the environment. All this, combining 100% online education, using multimedia materials designed based on the best teaching methodologies, with the practical part on site, in the hospital center chosen for this purpose.





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*In the Virtual Campus you will find dozens of hours of additional high quality material to expand each section of the syllabus in a personalized way based on your needs and requirements”*

### 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, Chemical, and Microbiological Hazards
- 1.10. New labelling and consumer information BORRAR
- 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. Nutrition and the Circadian System. Timing is the Key

### Module 3. Assessment of Nutritional Status and Diet. Application in Practice

- 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. Nutritional Consultation

- 4.1. How to Carry Out a Nutritional Consultation
  - 4.1.1. Analysis of the Market and Competition
  - 4.1.2. Clientele
  - 4.1.3. Marketing. Social Media
- 4.2. Psychology and Nutrition
  - 4.2.1. Psychosocial Factors Affecting Eating Behavior
  - 4.2.2. Interview Techniques
  - 4.2.3. Dietary Advice
  - 4.2.4. Stress Control
  - 4.2.5. Child and Adult Nutrition Education

### Module 5. Sports Nutrition

- 5.1. Exercise Physiology
- 5.2. Physiological Adaptation to Different Types of Exercise
- 5.3. Metabolic Adaptation to Exercise. Regulation and Control
- 5.4. Assessing Athletes' Energy Needs and Nutritional Status
- 5.5. Assessing Athletes' Physical Ability
- 5.6. Nutrition in the Different Phases of Sports Practice
  - 5.6.1. Pre-Competition
  - 5.6.2. During
  - 5.6.3. Post-Competition

- 5.7. Hydration
  - 5.7.1. Regulation and Needs
  - 5.7.2. Types of Beverages
- 5.8. Dietary Planning Adapted to Different Sports
- 5.9. Ergogenic Aids. BORRAR
  - 5.9.1. AMA Recommendations. BORRAR
- 5.10. Nutrition in Sports Injury Recovery
- 5.11. Psychological Disorders Related to Practising Sport
  - 5.11.1. Eating Disorders: Bigorexia, Orthorexia, Anorexia
  - 5.11.2. Fatigue Caused by Overtraining
  - 5.11.3. The Female Athlete Triad
- 5.12. The Role of the Coach in Sports Performance

## Module 6. Clinical Nutrition and Hospital Dietetics

- 6.1. Management of Hospital Nutrition Units
  - 6.1.1. Nutrition in the Hospital Setting
  - 6.1.2. Food Safety in Hospitals
  - 6.1.3. Hospital Kitchen Organization
  - 6.1.4. Planning and Managing Hospital Diets. Dietary Code
- 6.2. Hospital Basal Diets
  - 6.2.1. Basal Diet in Adults
  - 6.2.2. Pediatric Basal Diet
  - 6.2.3. Ovo-Lacto-Vegetarian and Vegan Diet
  - 6.2.4. Diet Adapted to Cultural
- 6.3. Therapeutic Hospital Diets
  - 6.3.1. Unification of Diets and Personalized Menus
- 6.4. Bidirectional Drug-Nutrient Interaction

## Module 7. Nutrition in Digestive System Pathologies

- 7.1. Nutrition in Oral Disorders
  - 7.1.1. Taste
  - 7.1.2. Salivation
  - 7.1.3. Mucositis

- 7.2. Nutrition in Esophageal and Gastric Disorders
  - 7.2.1. Gastroesophageal Reflux
  - 7.2.2. Gastric Ulcers
  - 7.2.3. Dysphagia
- 7.3. Nutrition in Post-Surgical Syndromes
  - 7.3.1. Gastric Surgery
  - 7.3.2. Small Intestine
- 7.4. Nutrition in Bowel Function Disorders
  - 7.4.1. Constipation
  - 7.4.2. Diarrhea
- 7.5. Nutrition in Malabsorption Syndromes
- 7.6. Nutrition in Colonic Pathology
  - 7.6.1. Irritable Bowel
  - 7.6.2. Diverticulosis
- 7.7. Nutrition in Inflammatory Bowel Disease (IBD)
- 7.8. Most Frequent Food Allergies and Intolerances with Gastrointestinal Effects
- 7.9. Nutrition in Liver Diseases
  - 7.9.1. Portal Hypertension
  - 7.9.2. Hepatic Encephalopathy
  - 7.9.3. Liver Transplant
- 7.10. Nutrition in Biliary Diseases. Biliary Lithiasis
- 7.11. Nutrition in Pancreatic Diseases
  - 7.11.1. Acute Pancreatitis
  - 7.11.2. Chronic Pancreatitis

## Module 8. Nutrition in Endocrine-Metabolic Diseases

- 8.1. Dyslipidemia and Arteriosclerosis
- 8.2. Diabetes Mellitus
- 8.3. Hypertension and Cardiovascular Disease
- 8.4. Obesity
  - 8.4.1. Etiology. Nutrigenetics and Nutrigenomics
  - 8.4.2. Pathophysiology of Obesity
  - 8.4.3. Diagnosis of the Disease and its Comorbidities
  - 8.4.4. Multidisciplinary Team in Obesity Treatment

- 8.4.5. Dietary Treatment. Therapeutic Possibilities
- 8.4.6. Pharmacological Treatment. New Drugs
- 8.4.7. Psychological Treatment
  - 8.4.7.1. Intervention Models
  - 8.4.7.2. Treatment of Associated Eating Disorders
- 8.4.8. Surgical Treatments
  - 8.4.8.1. Indications
  - 8.4.8.2. Techniques
  - 8.4.8.3. Complications
  - 8.4.8.4. Dietary Management
  - 8.4.8.5. Metabolic Surgery
- 8.4.9. Endoscopic Treatments
  - 8.4.9.1. Indications
  - 8.4.9.2. Techniques
  - 8.4.9.3. Complications
  - 8.4.9.4. Patient Dietary Management
- 8.4.10. Physical Activity in Obesity
  - 8.4.10.1. Assessment of the Patient's Functional Capacity and Activity
  - 8.4.10.2. Activity-based Prevention Strategies
  - 8.4.10.3. Intervention in the Treatment of the Disease and Associated Pathologies
- 8.4.11. Update on Diet and Obesity Studies
- 8.4.12. International Intervention Strategies for Obesity Control and Prevention

### **Module 9. Nutrition in Kidney Diseases**

- 9.1. Glomerular Disorders and Tubulopathies
- 9.2. Predialysis Chronic Renal Failure
- 9.3. Chronic Renal Failure and Dialysis
- 9.4. Gout and Hyperuricemia

### **Module 10. Nutrition in Neurological Diseases**

- 10.1. Swallowing Disorders
- 10.2. Disabling Neuromuscular Disorders
- 10.3. Stroke
- 10.4. Parkinson's Disease
- 10.5. Alzheimer's Disease

### **Module 11. Nutrition in Special Situations**

- 11.1. Nutrition in Metabolic Stress Situations
  - 11.1.1. Sepsis
  - 11.1.2. Polytrauma
  - 11.1.3. Burns
  - 11.1.4. Transplant Recipient
- 11.2. Nutrition in Oncology Patients with:
  - 11.2.1. Surgical Management
  - 11.2.2. Chemotherapy Treatment
  - 11.2.3. Radiotherapy Treatment
  - 11.2.4. Bone Marrow Transplant
- 11.3. Immune Diseases
  - 11.3.1. Acquired Immunodeficiency Syndrome

### **Module 12. Nutrition in Deficiency Diseases**

- 12.1. Malnutrition
  - 12.1.1. Hospital Malnutrition
  - 12.1.2. The Fasting and Refeeding Cycle
- 12.2. Anaemia. Hemochromatosis
- 12.3. Vitamin Deficiencies
- 12.4. Osteoporosis
- 12.5. Oral Disease and its Relation to Diet

**Module 13. Artificial Nutrition in Adults**

- 13.1. Enteral Nutrition
- 13.2. Parenteral Nutrition
- 13.3. Artificial Nutrition at Home
- 13.4. Adapted Oral Nutrition

**Module 14. Physiology of Infant Nutrition**

- 14.1. Influence of Nutrition on Growth and Development
- 14.2. Nutritional Requirements in the Different Periods of Childhood
- 14.3. Nutritional Assessment in Children
- 14.4. Physical Activity Evaluation and Recommendations
- 14.5. Nutrition During Pregnancy and its Impact on the New-born
- 14.6. Current Trends in the Premature New-born Nutrition
- 14.7. Nutrition in Lactating Women and its Impact on the Infant
- 14.8. Nutrition of Newborns with Intrauterine Growth Delay. Implications on Metabolic Diseases
- 14.9. Breastfeeding
  - 14.9.1. Human Milk as a Functional Food
  - 14.9.2. Process of Milk Synthesis and Secretion
  - 14.9.3. Reasons for it to be Encouraged
- 14.10. Human Milk Banks
  - 14.10.1. Milk Bank Operation and Indications
- 14.11. Concept and Characteristics of the Formulae Used in Infant Feeding
- 14.12. The Move to a Diversified Diet. Complementary Feeding During the First Year of Life
- 14.13. Feeding 1–3-Year-Old Children
- 14.14. Feeding During the Stable Growth Phase. Schoolchild Nutrition
- 14.15. Adolescent Nutrition. Nutritional Risk Factors
- 14.16. Child and Adolescent Athlete Nutrition
- 14.17. Other Dietary Patterns for Children and Adolescents. Cultural, Social, and Religious Influences on Infant Nutrition
- 14.18. Prevention of Childhood Nutritional Diseases. Objectives and Guidelines

**Module 15. Artificial Nutrition in Pediatrics**

- 15.1. Concept of Nutritional Therapy
  - 15.1.1. Evaluation of Patients in Need of Nutritional Support
  - 15.1.2. Indications
- 15.2. General Information about Enteral and Parenteral Nutrition
- 15.3. Dietary Products Used for Sick Children or Children with Special Needs
- 15.4. Implementing and Monitoring Patients with Nutritional Support
  - 15.4.1. Critical Patients
  - 15.4.2. Patients with Neurological Pathologies
- 15.5. Artificial Nutrition at Home
- 15.6. Nutritional Supplements to Support the Conventional Diet
- 15.7. Probiotics and Prebiotics in Infant Feeding

**Module 16. Infant Malnutrition**

- 16.1. Childhood Malnutrition and Undernutrition
  - 16.1.1. Psychosocial Aspects
  - 16.1.2. Pediatric Assessment
  - 16.1.3. Treatment and Monitoring
- 16.2. Nutritional Anemias
  - 16.2.1. Other Nutritional Anemias in Childhood
- 16.3. Vitamin and Trace Element Deficiencies
  - 16.3.1. Vitamins
  - 16.3.2. Trace Elements
  - 16.3.3. Detection and Treatment
- 16.4. Fats in Infant Diets
  - 16.4.1. Essential Fatty Acids
- 16.5. Childhood Obesity
  - 16.5.1. Prevention
  - 16.5.2. Impact of Childhood Obesity
  - 16.5.3. Nutritional Treatment

## Module 17. Childhood Nutrition and Pathologies

- 17.1. Nutrition of Children with Oral Pathologies
- 17.2. Nutrition in Acute Diarrhea Situation
- 17.3. Nutrition of Infants and Children with Gastroesophageal Reflux
- 17.4. Nutrition in Children with Celiac Disease
- 17.5. Nutrition in Children with Inflammatory Bowel Disease
- 17.6. Nutrition in Children with Digestive Malabsorption Syndrome
- 17.7. Nutrition in Children with Constipation
- 17.8. Nutrition in Children with Liver Disease
- 17.9. Feeding Difficulties and Disorders in Children
  - 17.9.1. Physiological Aspects
  - 17.9.2. Psychological Aspects
- 17.10. Eating Disorders
  - 17.10.1. Anorexia
  - 17.10.2. Bulimia
  - 17.10.3. Others
- 17.11. Inborn Errors of Metabolism
  - 17.11.1. Principles for Dietary Treatment
- 17.12. Nutrition in Dyslipidemias
- 17.13. Nutrition in Diabetic Children
- 17.14. Nutrition in Autistic Children
- 17.15. Nutrition in Children with Cancer
- 17.16. Nutrition in Children with Chronic Pulmonary Pathology
- 17.17. Nutrition in Children with Nephropathy
- 17.18. Nutrition in Children with Food Allergies and/or Intolerances
- 17.19. Childhood and Bone Pathology Nutrition





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*You will delve into new developments related to childhood obesity prevention in homes and schools, promoting the health of the very young through innovative strategies”*

07

# Clinical Internship

After passing the online updating process, the program includes a period of Internship Program in a reference center in the health area with the necessary clinical equipment, for 3 weeks with practical work days of 8 hours. It should be noted that the specialists will have at their disposal the support of a tutor who will accompany them throughout the process, both in the preparation and in the development of the clinical practices.



“

*TECH gives you access not only to the best online update, but also to an internship in a prestigious center where you can put into practice what you have developed in the first period"*

The Internship Program of this Clinical Nutrition program consists of a clinical internship in a clinical center of reference in the country, lasting 3 weeks, from Monday to Friday with 8 consecutive hours of practical training with an associate specialist. This stay will allow to see real patients alongside a team of reference professionals in the area of health and nutrition specifically, determining the most innovative procedures and diagnostics.

In this training proposal, completely practical in nature, the activities are aimed at developing and perfecting the skills necessary for the provision of primary care in areas and conditions that require a high level of qualification, and are oriented towards specific training for the exercise of the activity, in a safe environment and high professional performance.

The in-person stay in the clinic will allow the professionals to complete a minimum number of clinical practice activities that will allow them to practice specific medical procedures. It 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 the assigned tutor.

The procedures described below will be the basis of the practical part of the training, and their implementation will be subject to the center's own availability and workload, the proposed activities being the following:





Module	Practical Activity
<b>New developments in food and current trends</b>	Assess new advances in food
	Analyze Nutrigenetics
	Analyze Nutrigenomics
	Examine the various issues related to immunonutrition
<b>Specialized nutrition</b>	Work on the assessment of nutritional status
	Delve into intake assessment
	Special emphasis on assessment in psychology and nutrition
	Analyze the physiology of exercise
	Assess the energy needs and nutritional status of the athlete
	Assess the athlete's physical capacity
<b>Nutrition and hospital dietetics</b>	Delve into the dietary planning adapted to different sports
	Manage hospital nutrition units
	Analyze hospital basal diets
<b>Nutrition in various pathologies</b>	Delve into the design of hospital therapeutic diets
	Delve into the assessment of nutrition in oral disorders
	Work in the analysis of Nutrition in esophago-gastric alterations
	Improve their skills in the evaluation of nutrition in post-surgical syndromes
	Analyze the nutritional value of dyslipidemia and arteriosclerosis
	Delve into the assessment of Diabetes Mellitus
	Work on the assessment of glomerular disorders and tubulopathies
Analyze predialysis chronic renal failure	

## 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 of the Internship Program

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 student 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 Internship?

In order to provide an elite update for all, this Hybrid Professional Master's Degree provides access to a 3-week internship in a prestigious center. Thanks to TECH's exhaustive selection process to offer students the best qualifications in the market, complementing theoretical studies with internships to update and validate knowledge in real cases and with the help of expert professionals. A luxury opportunity that is only possible by studying at the world's largest digital university.



A photograph of a white plastic bottle being poured into a glass beaker. The liquid is a light yellowish color. The background is a teal color with some faint white markings, possibly a chalkboard or a lab setting. The image is partially obscured by a diagonal white and purple overlay.

“

*Accompanying theoretical studies with practical work will strengthen your education and validate your knowledge"*

## tech 42 | Where Can I Do the Internship?

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



**Nutrition**

### Villanueva de la Cañada Medical Center

Country	City
Spain	Madrid

Address: St. Arquitecto Juan de Herrera, 2,  
28691 Villanueva de la Cañada, Madrid

Medical center with services in the main clinical specialties  
and diagnostic tests

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**Related internship programs:**

- Clinical Nutrition in Pediatrics
- Primary Care Clinical Ultrasound

**Clinical Nutrition**





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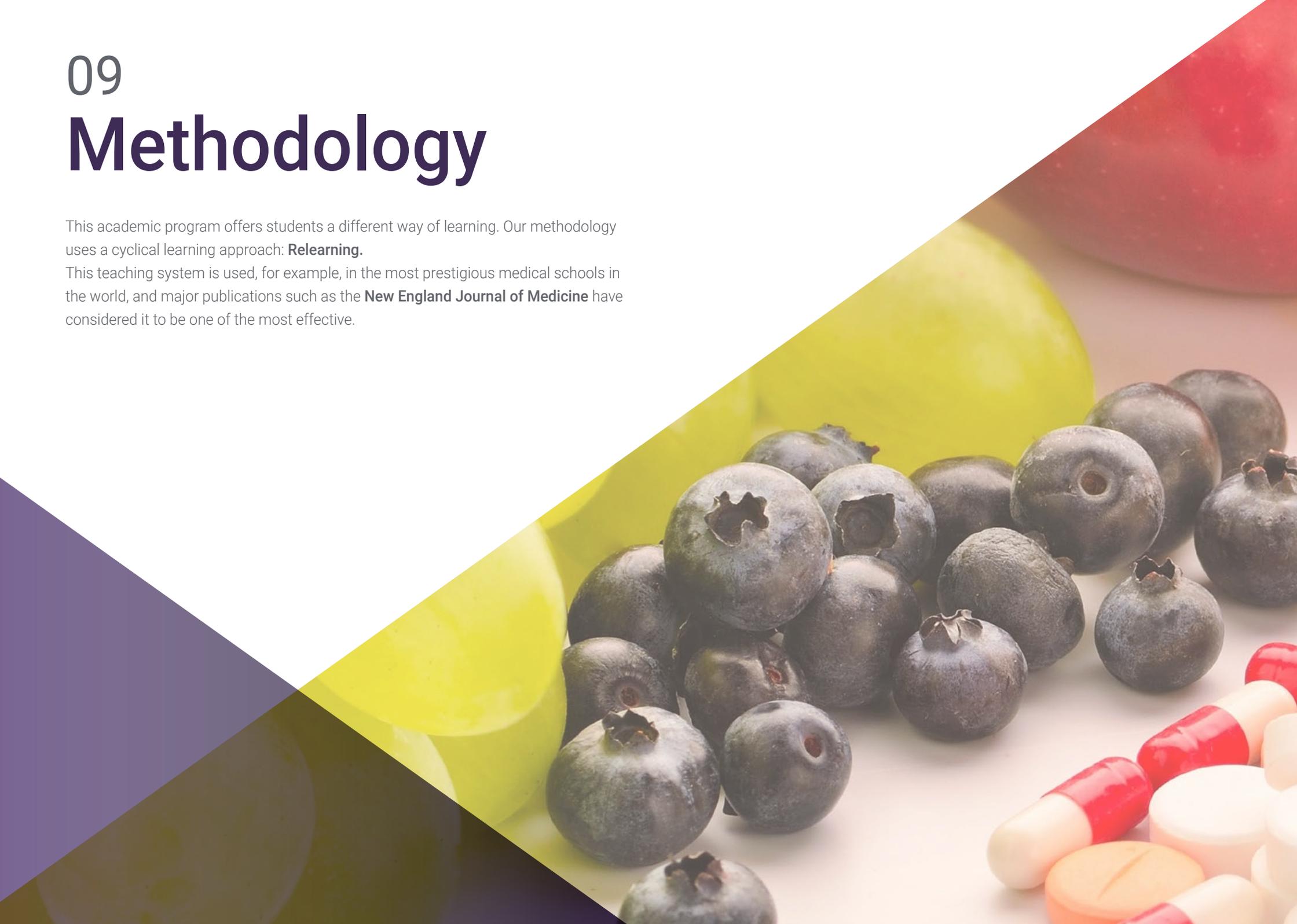
*Boost your career path with holistic teaching, allowing you to advance both theoretically and practically”*

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.





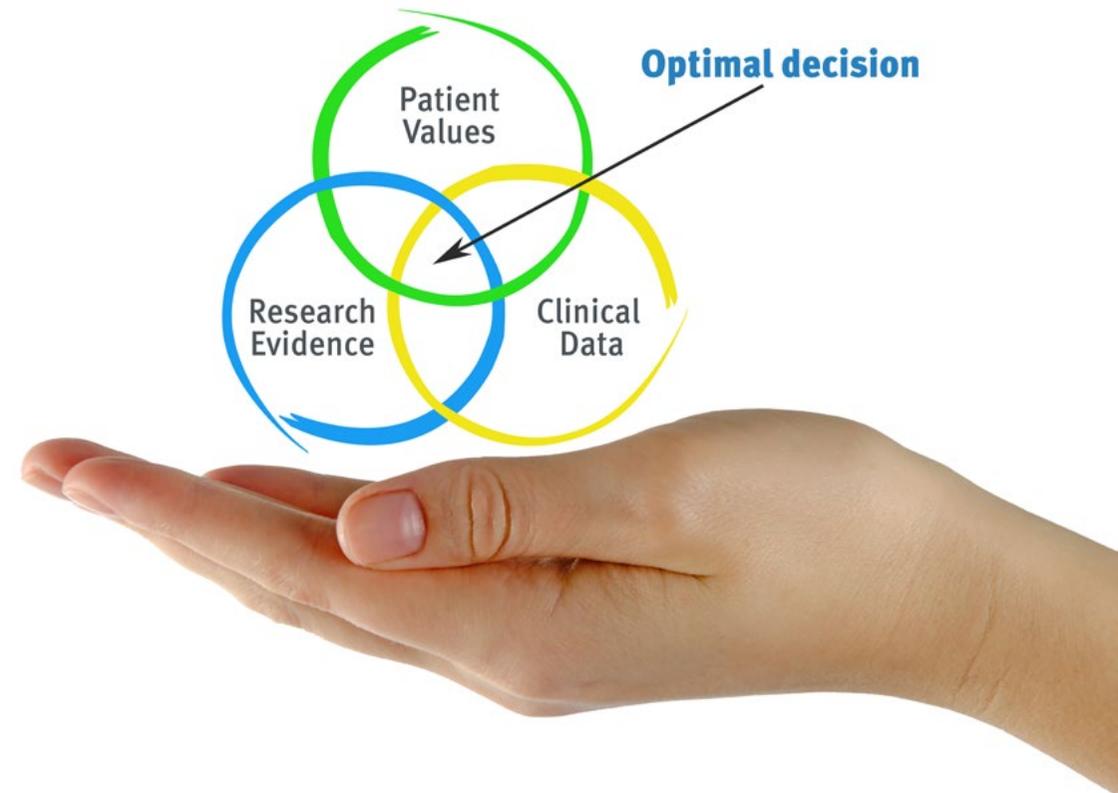
“

*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"*

## At TECH 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. Specialists learn better, faster, and more sustainably over time.

*With TECH, nutritionists can 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 of professional nutritional 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. Nutritionists who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the nutritionist to better integrate knowledge into clinical practice.
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.

*The nutritionist 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, more than 45,000 nutritionists have been trained with unprecedented success in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by 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.



#### Nutrition Techniques and Procedures on Video

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



#### Interactive Summaries

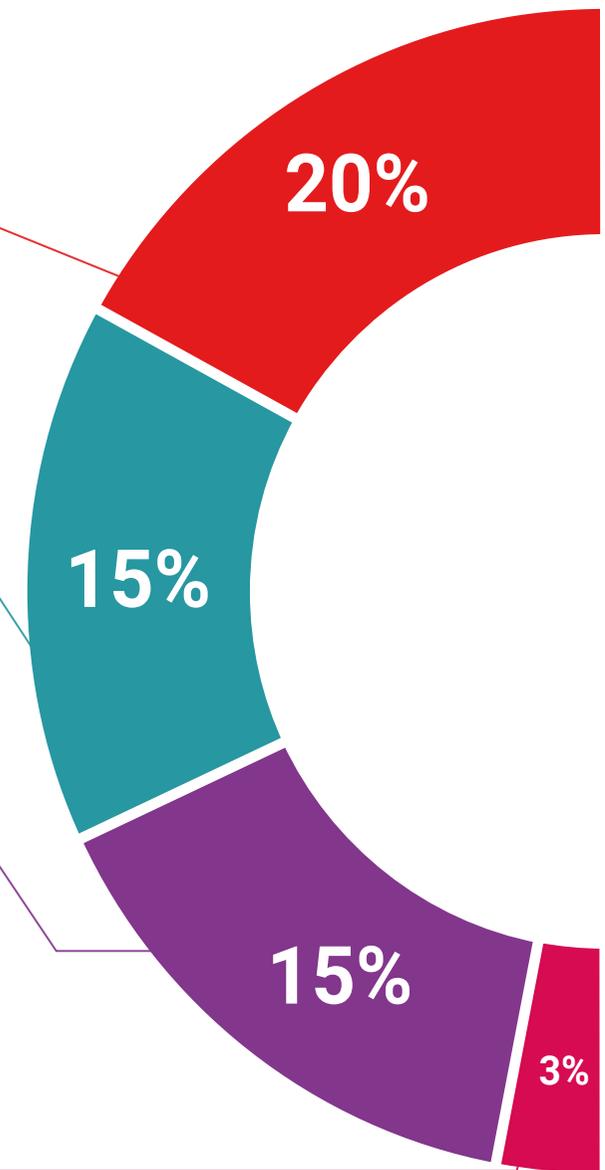
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

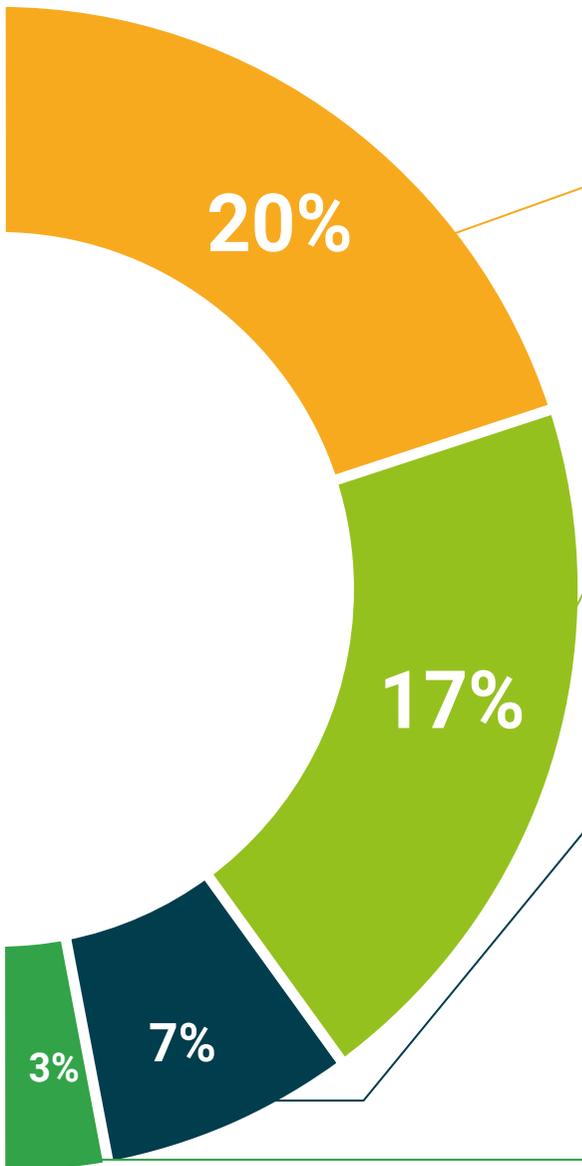
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 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

The Hybrid Professional Master's Degree in Clinical Nutrition 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.





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

This **Hybrid Professional Master's Degree in Clinical Nutrition** 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 diploma, 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.

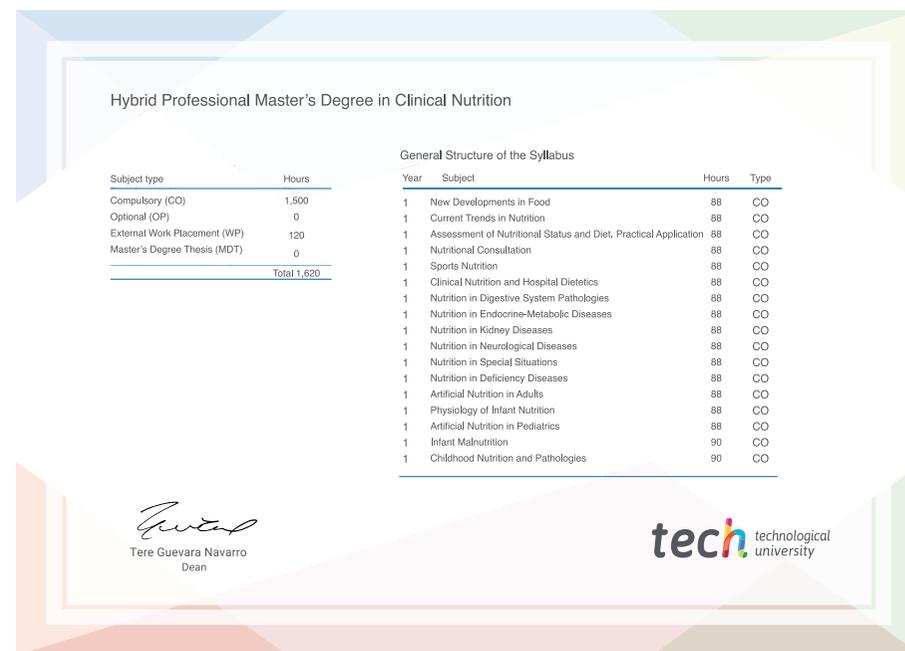
Title: **Hybrid Professional Master's Degree in Clinical Nutrition**

Modality: **Hybrid (Online + 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 diploma 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 innovation  
knowledge present quality  
development languages  
virtual classroom



**Hybrid Professional  
Master's Degree  
Clinical Nutrition**

Modality: Hybrid (Online + Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1620h.

# Hybrid Professional Master's Degree

## Clinical Nutrition

