Professional Master's Degree Clinical Nutrition





Professional Master's Degree Clinical Nutrition

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

Website: www.techtitute.com/us/nutrition/professional-master-degree/master-clinical-nutrition

Index



01 Introduction

Clinical Nutrition is a very important area in medicine, sometimes being used as part of treatment. Patients who need this type of care are those who suffer from a disease or predisposed to it, such as digestive system diseases, metabolic disorders or overweight. In this sense, professionals trained in this field should be available to fulfil the role of preventing and treating nutritional problems. This 100% online program designed by TECH is focused on this labor sector, and seeks to train professionals to assess and calculate nutritional requirements in health and disease situations at any stage of the life cycle.

2

2013 40131

Introduction | 05 tech

(1.11)

1110

1040011 100101

60 sephoul SIBONS IBI 1 AJEJO

Carbol Swooz wir

1010350

60 tes perentesunou

50

Keeping up-to-date in clinical nutrition is key to providing better care to our patients"

tech 06 | Introduction

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.

In this sense, nutritionists focused on the clinical area are part of a multidisciplinary team that possesses scientific knowledge in their area of competence, with skills that allow them to apply efficient nutritional care to their patients. Consequently, they intervene in dietary treatment taking into account physiological and/or pathological needs, as well as dietary habits, socioeconomic, religious and cultural conditions to prevent and treat diseases.

This Professional Master's Degree offers the student the possibility of updating knowledge using the latest educational technology. It provides a global vision of Clinical Nutrition while focusing on the most important and innovative aspects of adult nutrition, with an update on the nutritional therapy of the most prevalent pathologies; as well as pediatric nutrition including from the intrauterine phase to adolescence, and the diseases in which nutrition plays a highly relevant role.

It is a 100% online program, enriched with audiovisual material, complementary readings and self-knowledge exercises. In addition, it uses the innovative *Relearning* methodology, based on learning by repetition and experience, leaving behind the conventional educational model.

This **Professional Master's Degree in Clinical Nutrition** contains the most complete and up-to-date program on the market. Its most notable features are:

- More than 100 clinical cases presented by experts in nutrition
- The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice.
- It contains exercises where the self-assessment process can be carried out to improve learning.
- Algorithm-based interactive learning system for decision-making for patients with feeding problems.
- Clinical practice guidelines on the different pathologies related to nutrition
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- Availability of content from any device, fixed or portable, with Internet connection

Acquire the necessary skills and competencies to work in the area of Clinical Nutrition with a high Educational intensity master's degree".

Introduction | 07 tech

66

You will specialize under the guidance of professionals with extensive experience in Pediatric Orthopedics, who will walk you through the entire education process" With this Professional Master's Degree you will be able to combine a high intensity specialization with your professional and personal life, achieving your goals in a simple and real way.

A training created and directed by professional experts in Clinical Nutrition that make this Professional Master's Degree a unique opportunity for professional growth.

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn 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 during the academic year For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts

02 **Objectives**

This Professional Master's Degree is oriented towards effectively updating the Nutritionist's knowledge of Clinical Nutrition, in order to provide quality care based on the latest scientific evidence that guarantees patient safety.

Objectives | 09 tech

The Professional Master's Degree in Clinical Symptoms Nutrition will provide you with essential personal and professional skills to play an adequate role in any professional situation in this field of intervention"

tech 10 | Objectives



General Objectives

- Update the nutritionist's knowledge on new trends in human nutrition in both health and pathological situations.
- Promote work strategies based on the practical knowledge of the new trends in nutrition and its application to child and adult pathologies, where nutrition plays a fundamental role in treatment
- Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific education
- Encourage professional stimulation through continuous education and research



You will be able to complete the Professional Master's Degree 100% online, adapting it to your needs and making it easier for you to take it while you carry out your full-time healthcare role"



Objectives | 11 tech







Specific Objectives

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 properties, and the changes 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

tech 12 | Objectives

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 a uni 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
- 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
- In-depth study of 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

Objectives | 13 tech

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
- Apply the knowledge acquired on nutritional assessment in Pediatrics

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

03 **Skills**

After passing the assessments on this program, the physician will have acquired the necessary professional skills for quality, up-to-date Nutritionist practice based on the most innovative teaching methodology.

After completing this program, you will be able to assimilate and use the methods and strategies necessary to perform quality nutritional counseling"

tech 16 | Skills



General Skills

- 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.

Train yourself for success with the help of this master's degree with which you will learn to develop yourself in the field of Clinical Nutrition"



Specific Skills

- 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 diseases.
- 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

- Distinguish dietary management of patients with debilitating neuromuscular pathology and cerebrovascular accidents
- 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

04 Course Management

Our teaching team, experts in Clinical Nutrition, are well known in the profession and are professionals with years of teaching experience who have come together to help you boost your career. To this end, they have developed this Master's Degree with the latest developments in the field that will allow you to train and increase your skills in this sector.

Course Management | 19 tech



Learn from the best professionals and become a successful professional yourself"

International Guest Director

Dr. Sumantra Ray is an internationally recognized specialist in Nutrition and his main areas of interest are Nutrition Education in Health Systems and Cardiovascular Disease Prevention. With his outstanding experience in this health field, he has served as a consultant on special assignment for the Nutrition Management of the World Health Organization Headquarters in Geneva. He has also worked as Director of Research in Food Security, Health and Society in the Faculty of Humanities and Social Sciences at the University of Cambridge.

For his constant commitment to the dissemination of **healthy eating habits**, he has received the **Josephine Lansdell Award** from the British Medical Association. Specifically, this recognition highlighted his contributions related to nutrition and **Cardiovascular Prevention**. Also, as an international expert, he has participated in a work program on **Food**, **Nutrition** and **Education** in India, led by the University of Cambridge and funded by the UK Global Challenges Research Fund.

Dr. Sumantra Ray's studies are worldwide references, focusing on **global food security**, as it is a fundamental aspect for the development of societies. In addition, he has demonstrated his leadership skills as a **Senior Clinical Scientist** at the **Medical Research Council**, focusing on **Nutrition** and **Vascular Health** studies. In this position, he directed an experimental medicine facility dedicated to Human **Nutrition** studies.

Throughout his career he has authored more than **200 scientific publications** and has written the **Oxford Handbook of Clinical and Health Research**, aimed at strengthening the basic research skills of health care workers around the world. In this sense, he has shared his scientific findings in numerous presentations and congresses, in which he has participated in different countries.



Dr. Ray, Sumantra

- Executive Director and Founder, NNEdPro Global Nutrition and Health
- Centre, Cambridge, UK
- Director of Research in Food Security, Health and Society in the Faculty of Humanities and Social Sciences, University of Cambridge
- Co-Founder and President of the BMJ Scientific Journal Nutrition, Prevention and Health
- Presidential Advisor at the School of Advanced Studies on Food and Nutrition, University of Parma
- Vice President of the Conference of Medical Academic Representatives of the BMA

- Consultant on special assignment for the Nutrition Directorate of the World Health Organization Headquarters in Geneva
- Honorary International Dean of the Cordia Colleges in India
- Senior Clinical Scientist with the Medical Research Council
- Bachelor's Degree in Medicine

6

Thanks to TECH, you will be able to learn with the best professionals in the world"

tech 22 | Course Management

Management



Dr. Aunión Lavarías, María Eugenia

- Pharmacist Clinical Nutrition Expert
- Author of the reference book in the field of Clinical Nutrition Dietary, Management of Overweight in the Pharmacy Office".
- Pharmacist with extensive experience in the public and private sector.
- Head Pharmacist
- Pharmacy Assistant. Pharmacy Chain. British Health and Beauty Retailers Boots UK. Oxford Street Centro de Londres
- Bachelor 's Degree in Food Science and Technology. University of Valencia
- Direction of the Dermocosmetic University Course. Pharmacy Office

05 Structure and Content

The structure of the syllabus has been designed by a team of professionals who recognize the implications of training in nutrition based on clinical practice, are aware of the relevance in current specialization, and are committed to quality teaching using new educational technologies.

This TECH Professional Master's Degree in Clinical Nutrition, contains the most complete and up-to-date program on the market"

tech 26 | Structure and Content

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 Symbiotics
 - 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
- 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. 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. 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. Physiology of Exercise
- 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

Structure and Content | 27 tech



- 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 and Current Anti-Doping Regulations 5.9.1. AMA and AEPSAD Recommendations
- 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

tech 28 | Structure and Content

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.





Structure and Content | 29 tech

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

tech 30 | Structure and Content

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

Structure and Content | 31 tech

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 Children17.9.1. Physiological Aspects
 - 17.9.2. Psychological Aspects
 - 17.9.2. PSychological Aspe
- 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



06 **Methodology**

This 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 34 | Methodology

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.

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 assess 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.

 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 36 | Methodology

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

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.



Methodology | 37 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, more than 45,000 nutritionists have been prepared 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 socioeconomic 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 education, 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 balance each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



tech 38 | 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 highly specific and precise.

20%

15%

3%

15%

These contents are then adapted in 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.

20%

7%

3%

17%



Testing & Retesting

We periodically assess and re-assess students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.

07 **Certificate**

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



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

tech 42 | Certificate

This program will allow you to obtain your **Professional Master's Degree diploma in Clinical Nutrition** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: Professional Master's Degree in Clinical Nutrition

Modality: **online** Duration: **12 months**

Accreditation: 60 ECTS



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

tecn global university **Professional Master's** Degree **Clinical Nutrition** » Modality: online » Duration: 12 months » Certificate: TECH Global University » Schedule: at your own pace » Exams: online

Professional Master's Degree Clinical Nutrition

