

# Professional Master's Degree Clinical Nutrition for Nursing





## Professional Master's Degree Clinical Nutrition for Nursing

Course Modality: Online

Duration: 12 months.

Certificate: TECH Technological University

Official N° of Hours: 1,500 h.

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

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# 01

# Introduction

This program is oriented towards updating the nursing professional to incorporate the latest advances in clinical nutrition, in order to improve the prognosis of their patients with nursing care.

A unique opportunity to specialise in a high-demand professional field.





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*Acquire the necessary skills and competencies to work in nursing in the area of Clinical Nutrition with a high-intensity Master's program"*

This complete study course goes in depth into the nutritional problems most frequently presented by patients, addressing different techniques for assessment and nursing diagnoses. It will allow the nursing professional to adapt this knowledge to each patient, using the entire suggested plan and supplementing it with his or her own experiences.

With this Professional Master's degree, nurses will develop their skills and knowledge of the different health problems in Clinical Nutrition. A unique opportunity to be trained by great working professionals, with the best didactic resources and practical cases based on real clinical situations.

Specialization in nutrition is the essential response of the professional to the needs of the population in terms of food and health care and prevention. An example of this is the growing implementation of Nutrition and Dietetics Units or Services in Spanish Hospitals, where the figure of the nurse takes on special relevance in the assessment of nutritional status and the planning and execution of particular nursing care for each patient.

Currently, there is a high demand for nurses with specific knowledge in Clinical Nutrition in the following areas:

- ◆ Food processing industries
- ◆ Food quality control laboratories
- ◆ Medical and pharmaceutical visitor
- ◆ Food, nutrition and dietetics consultancy companies
- ◆ Sports centers and esthetic clinics
- ◆ Group canteens, catering services, hotels, schools, etc.
- ◆ Food handling training programs
- ◆ Centers for the Prevention and Treatment of Eating Disorders

With this program, you will have the opportunity to study a program that brings together the most advanced and in-depth knowledge in the field, where a group of professors of high scientific rigor and extensive international experience provides you with the most complete and up-to-date information on the latest advances and techniques in Clinical Nutrition for Nursing.

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

- ◆ The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice
- ◆ 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
- ◆ Nursing care 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
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*A program created and directed by expert professionals in Clinical Nutrition that make this Professional Master's degree a unique opportunity for professional growth"*

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*This Professional Master's degree may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in advanced clinical nutrition, you will obtain a Professional Master's degree from TECH Technological University"*

Its teaching staff includes renowned specialists in nutrition based on clinical practice, who bring the experience of their work to this program.

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 an immersive program to study in real situations.

This program is designed around Problem-Based Learning, whereby the nursing professional must try to solve the different professional practice situations that arise throughout the program. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of radiology with extensive teaching experience.

*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.*

*The learning experience on this Professional Master's Degree follows the most developed didactic methods in online teaching to guarantee your efforts lead to the best results possible.*



# 02 Objectives

This Professional Master's Degree is oriented to achieve an effective update of the knowledge of the nursing professional in Clinical Nutrition, to be able to perform quality care, based on the latest scientific evidence to ensure quality and safety in the patient.







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



## General Objectives

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- Update the nursing professional's knowledge on new trends in human nutrition, both in health and in pathological situations through evidence-based nursing
- 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
- 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 training
- Encourage professional stimulation through continuous education and research
- Train the professional for research into patients with nutritional problems





## Specific Objectives

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### Module 1. New Developments in Food

- ♦ Review the new dietary guidelines, nutritional objectives, and recommended dietary allowances (RDA)
- ♦ Incorporate the possibilities of phytotherapy as an adjuvant treatment in nursing practice
- ♦ Identify the relationship between nutrition and immune status
- ♦ Manage the different types of nutritional surveys to assess food intake
- ♦ Describe the composition and utilities of new foods

### Module 2. Current Trends in Nutrition

- ♦ Manage food databases and composition tables
- ♦ Acquire skills in reading and understanding new food labeling methods
- ♦ Update knowledge in nutrigenetics and nutrigenomics

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

- ♦ Update the basics of a balanced diet in the different stages of the life cycle, as well as in exercise
- ♦ Review the psychological bases and biopsychosocial factors that affect human eating behavior
- ♦ Analyze the different methods for assessing nutritional status

### Module 4. Nutritional Consultation

- ♦ Assess and calculate nutritional requirements in health and disease at any stage of the life cycle
- ♦ 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
- ♦ Review basic aspects of food microbiology, parasitology and toxicology related to food safety
- ♦ Evaluate and maintain adequate hygiene and food safety practices, applying current legislation
- ♦ Early detection and assessment of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- ♦ Identify and classify foods, food products, and food ingredients
- ♦ Identify eating behavior disorders

### Module 5. Sports Nutrition

- ♦ Assess and prescribe physical activity as a factor involved in nutritional status
- ♦ Calculate child and adolescent athlete dietary needs and risks

### Module 6. Clinical Nutrition and Hospital Dietetics

- ♦ Acquire teamwork skills as a unit in which professionals and other personnel involved in the diagnostic evaluation and treatment of dietetics and nutrition are structured in a multidisciplinary and interdisciplinary manner
- ♦ Acquire technical knowledge on the handling of systems and devices necessary for nutritional support in critically ill patients

### Module 7. Nutrition in Digestive System Pathologies

- ♦ Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological and pharmacological data in the nutritional assessment of the patient and in the dietary-nutritional treatment of digestive tract pathologies
- ♦ Describe the management of nutritional support in inflammatory diseases
- ♦ Determine the management of the small intestine
- ♦ Review the rationale for dietary support of acute diarrhea
- ♦ Gain up-to-date knowledge on the most common food allergies and intolerances.
- ♦ Reflect on new techniques in digestive and intestinal surgery and their impact on patient nutrition
- ♦ Describe the main malabsorption syndromes and how they are treated
- ♦ Identify the signs and symptoms of the most prevalent colonic pathology and its nutritional treatment
- ♦ Study the role of the intestinal microbiota and its implications in pathologies
- ♦ Reflect on the etiology of constipation and its relationship to diet in adults
- ♦ Identify nutritional factors involved in gastroesophageal reflux and ulcers

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

- ♦ Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological and pharmacological data in the nutritional assessment of the patient and in the dietary-nutritional treatment of endocrine diseases
- ♦ Study the DASH diet as a treatment for cardiovascular disease
- ♦ Determine the dietary management of the patient with disabling neuromuscular pathology and stroke
- ♦ Manage the diet of critically ill patients

### Module 9. Nutrition in Kidney Diseases

- ♦ Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological and pharmacological data in the nutritional assessment of the patient and in the dietary-nutritional treatment of renal diseases
- ♦ Know the dietary treatment for biliary and pancreatic pathologies
- ♦ Understand the implications that nutrition can have in the treatment of liver diseases
- ♦ Identify dietary factors involved in hyperuricemia
- ♦ Get up to date on the dietary management of dyslipidemias

### Module 10. Nutrition in Neurological Diseases

- ♦ Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological and pharmacological data in the nutritional assessment of the patient and in the dietary-nutritional treatment of neurological diseases
- ♦ Gain up-to-date knowledge of the management of patients with swallowing problems

### Module 11. Nutrition in Special Situations

- ♦ Review the drug-nutrient interaction, the biochemical processes involved and their implication in the patient's therapeutics.
- ♦ Assess the nutritional support of children with cancer in different situations
- ♦ Identify the nutritional support needs of patients with Parkinson's disease and Alzheimer's disease at each evolutionary stage.
- ♦ Manage the type II diabetic diet and other lifestyle factors.
- ♦ Study the interrelationship between diet and oral disease.
- ♦ Identify and assess obesity and know its dietary or surgical treatment.
- ♦ Update on the dietary management of oral cavity pathologies in adults

### Module 12. Nutrition in Deficiency Diseases

- ♦ Identify dietary and lifestyle factors involved in the genesis and treatment of osteoporosis
- ♦ Incorporate the nutritional treatment of the most prevalent deficiency diseases in adults
- ♦ Identify dietary factors related to bone metabolism

### Module 13. Artificial Nutrition in Adults

- ♦ Incorporate the different techniques and products of basic and advanced nutritional support
- ♦ Identify patients with nutritional risk or established malnutrition susceptible to specific support
- ♦ Evaluate and monitor the supervision of nutritional support
- ♦ Update knowledge in the light of the current evolution of HIV patients on the nutritional support of the disease
- ♦ Update knowledge of specific formulae for artificial nutrition in adults
- ♦ Explain the different techniques and products of basic and advanced nutritional support related to the nutrition of the patient

### Module 14. Physiology of Infant Nutrition

- ♦ Review current trends in premature infant nutrition
- ♦ Describe current trends in the feeding of the intrauterine delayed infant and the implication of feeding on metabolic diseases
- ♦ Reflect on the role of human milk as a functional food
- ♦ Review the physiology of breastfeeding
- ♦ Explain the operation of milk banks
- ♦ To reflect on new trends and models in infant feeding
- ♦ Reflect and identify risk factors in school and adolescent nutrition
- ♦ Describe the pathophysiological aspects of pediatric diseases.
- ♦ Reflect on the role of nutrition in autistic children
- ♦ Match the different types of malnutrition and their impact on the developing organism
- ♦ 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
- ♦ Update knowledge on probiotics and prebiotics in infant feeding
- ♦ 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
- ♦ Review and update the role of fats in children's diets

### Module 15. Artificial Nutrition in Pediatrics

- Apply Food Science and Nutrition to the practice of pediatric dietetics
- Update on the dietary management of oral cavity pathologies in children
- Update knowledge on new formulae used in infant feeding
- Identify children at nutritional risk who are eligible for specific support
- Evaluate and monitor the supervision of children on nutritional support
- Apply the knowledge acquired on artificial nutritional assessment in pediatrics

### Module 16. Infant Malnutrition

- Identify children suffering from malnutrition
- Explain the correct nutritional support for a malnourished child
- Describe the nutritional requirements in the different periods of childhood
- Identify the repercussion that a pregnant and lactating mother's nutrition has on the intrauterine growth and evolution of new-borns and infants





### Module 17. Childhood Nutrition and Pathologies

- ◆ Determine the management of a child with gastroesophageal reflux
- ◆ Reflect on the etiology, repercussions, and treatment of childhood obesity
- ◆ Understand the implications of nutrition in the growth process and in the prevention and treatment of different pathologies in childhood
- ◆ Determine the dietary guidelines for adults with chronic renal failure and on dialysis.
- ◆ Get up to date on the dietary management of dyslipidemias
- ◆ Assess the psychological and physiological aspects involved in eating disorders in young children
- ◆ Identify the appropriate nutritional therapy for pediatric patients with chronic pulmonary pathology
- ◆ To identify exclusion foods in the diets of children with celiac disease.
- ◆ Explain the dietary management of the child with nephropathy
- ◆ Reflect on the relationship between constipation and infant nutrition
- ◆ Manage diabetic children's diet

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*Take advantage of the opportunity and take the step to get up to date on the latest developments in Clinical Nutrition for Nurses”*

# 03 Skills

After passing the evaluations of this program, the nursing professional will have acquired the professional competencies necessary for an up-to-date quality clinical practice based on the latest scientific evidence.







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*With this program, you will be able to perform nursing interventions in the nutrition of adult and pediatric patients”*



## 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 area 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 their conclusions, knowledge and the ultimate reasons behind them to specialized and non-specialized audiences in a clear and unambiguous manner
- ♦ Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner



## Transversal skills

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- ♦ Develop within the profession in terms of working with other health professionals, acquiring skills to work as a team
- ♦ Recognize the need to maintain your professional skills and keep them up to date, with special emphasis on autonomous and continuous learning of new information
- ♦ Develop the capacity for critical analysis and research in your professional field



*Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: "learning from an expert"*



## Specific Skills from the Degree

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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
- ♦ Develop 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
- ♦ Develop a treatment for the management of patients with swallowing problems.
- ♦ Determine the dietary guidelines for adults with chronic renal 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 for 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
- ♦ Explain the operation of milk banks
- ♦ 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
- ♦ Relate the psychological and physiological aspects that are involved in feeding 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 Professional Master's Degree with the latest developments in the field that will allow you to train and increase your skills in this sector.



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*Learn the latest advances in clinical nutrition  
from leading professionals”*

Directors:



**Dr. Amado Canillas, Javier**

- ♦ Nursing Supervisor at 12 de Octubre Hospital Hospitalization of Pneumology, Endocrinology and Rheumatology. Associate Professor of Health Sciences at the Complutense University of Madrid: Associate Clinician of Medical-Surgical Nursing
- ♦ Evaluator of teaching activities for the Technical Secretariat of the Directorate General of Planning, Research and Training of the Community of Madrid
- ♦ PhD in Nursing from the Complutense University of Madrid, 2014
- ♦ Degree in Nursing and Master's Degree in Research in Care from the Complutense University of Madrid
- ♦ PhD in Audiovisual Communication Complutense University
- ♦ More than 10,000 accredited teaching hours as professor of specialized care for different organizations, in particular for the Nursing College of Madrid and FUDEN



**Ms. Bartolomé Hernández, Laura**

- ♦ Associate Head of the Endocrinology and Nutrition Department, Jiménez Díaz Foundation
- ♦ Associate Head of the Endocrinology and Nutrition Department of the Rey Juan Carlos Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Resident Physician of Endocrinology and Nutrition at the Insular University Hospital of Gran Canaria
- ♦ Assistant Physician in the Endocrinology and Nutrition Department at Henares Hospital
- ♦ Attending physician in the Endocrinology and Nutrition Department at the Ramón y Cajal Hospital
- ♦ Honorary Tutor at Rey Juan Carlos University



### **Ms. Vázquez Martínez, Clotilde**

- Corporate Head of the Endocrinology and Nutrition Department Jiménez Díaz Foundation and Quirón Salud group
- Head of the Endocrinology and Nutrition Department at Ramón y Cajal Hospital (Madrid) and Severo Ochoa Hospital, Leganés (Madrid)
- President of SENDIMAD (Society of Endocrinology, Nutrition, and Diabetes of the Community of Madrid)
- Former Coordinator of the Therapeutic Education Group (GEET) of the Spanish Society of Diabetes
- Recipient of the Abraham García Almansa Clinical Nutrition Lifetime Achievement Award, 1998
- Recognized among the 100 best Doctors in Spain according to Forbes list
- Castilla La Mancha Diabetes Foundation (FUCAMDI) Diabetes and Nutrition Lifetime Achievement Award
- Degree in Medicine and Surgery from the Faculty of Medicine at the University of Valencia
- Doctorate from the Faculty of Medicine at the Autonomous University of Madrid
- Specialist in Endocrinology and Nutrition via Medical Residency at the Jimenez Díaz Foundation

## Co-Direction



### Dr. Gimeno Uribes, Caridad

- ◆ Degree in Medicine and Surgery
- ◆ Head of the Clinical Nutrition Unit at Hospital Quirón Salud. Valencia, Spain
- ◆ Nutritional advisor at Torrevieja Hospital Quirón Salud Alicante, Spain
- ◆ Master's Degree in Human Nutrition, University of Sheffield, United Kingdom
- ◆ Master's Degree in Clinical Nutrition from the Autonomous University of Madrid. Spain
- ◆ ISAK Level I Anthropometrist
- ◆ Professor of Human Nutrition and Diet Therapy at the Cardenal Herrera CEU University where she teaches in the different degrees of the health area
- ◆ Advisor and trainer in sports nutrition for the Sailing Federation of the Valencian Community Spain
- ◆ Collaborating Professor of the Valencian School of Health Studies (EVES) Valencia, Spain



### Dr. Codoñer Franch, Pilar

- ◆ Degree in Medicine and Surgery
- ◆ Professor of the Pediatrics, Obstetrics, and Gynecology Department at the University of Valencia
- ◆ Accredited for the teaching body of Spanish University Professors in Health Sciences
- ◆ President of the Valencian Pediatrics Society
- ◆ President of the Clinical Research Ethics Committee of the Dr. Peset University Hospital Valencia, Spain
- ◆ Member of the Board of Directors of the Spanish Society for Research in Nutrition and Nutrition in Pediatrics (SEINAP)
- ◆ Member of the Scientific Committee of the Foundation for the Promotion of Health and Biomedical Research of the Valencian Community (FISABIO)
- ◆ Member of the "Cátedra FISABIO - University of Valencia" athenaeum
- ◆ Member of the Valencian Medical Institute



## Professors

### Ms. Labeira Candel, Paula

- ◆ Dietician-Nutritionist in Dr López Nava's Bariatric Endoscopy Unit HM Sanchinarro University Hospital
- ◆ Dietician-Nutritionist at the Institute of Overweight and Obesity Fundación Jiménez Díaz
- ◆ Dietician-Nutritionist at Medicadiet Nutrition Centers
- ◆ Dietician - Sports Nutritionist at Corre tu Reto - Los Tribullis
- ◆ Diploma in Human Nutrition and Dietetics Pablo Olavide University, Seville
- ◆ Master's Degree in Sports Training and Nutrition European University of Madrid

### Ms. Calderón Sánchez, Cristina

- ◆ Dietician- Nutritionist at the General Hospital of Collado Villalba
- ◆ Degree in Human Nutrition and Dietetics UOC
- ◆ Master's Degree in Nutrition and Health with Clinical Specialty UAM
- ◆ Participation in Predimed Plus Study
- ◆ Dietician- Nutritionist at the Jiménez Díaz Foundation
- ◆ Nutritionist at San Miguel Arcángel Residence
- ◆ Solidarity campaigns for school supplies with the Red Cross

### Dr. Fernández Vázquez, Clotilde

- ◆ Medical assistance support at the Institute of Endocrinology and Nutrition of the Jiménez Díaz Foundation
- ◆ Medical assistance services for Medipremium through EuropeAssitance
- ◆ ILUNION Sports Event Doctor
- ◆ Degree in Medicine, University of Alcalá de Henares, Spain
- ◆ Master's Degree in Integrative Humanistic Psychotherapy, at the Galene Institute in Madrid

### Ms. Fernández Menéndez, Amanda

- ◆ Specialist Doctor in Endocrinology and Pediatric Nutrition Jiménez Díaz Foundation Hospital Obesity and Overweight Institute
- ◆ Pediatrician Doctor Castroviejo Health Center SERMAS
- ◆ Attending physician specializing in Pediatric Endocrinology and Nutrition La Paz University Hospital
- ◆ International Cooperation in Health and Development in India Development of health projects in the field (International Cooperation in Health and Development in India)
- ◆ Degree in Medicine and Surgery Autonomous University of Madrid
- ◆ Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis, and Integral Treatment Rey Juan Carlos University
- ◆ Expert in Clinical Bioethics Complutense University of Madrid

### Mr. Sánchez Jiménez, Álvaro

- ◆ Nutritionist at Medicadiet
- ◆ Clinical Nutritionist specialized in prevention and treatment of obesity, diabetes and their comorbidities
- ◆ Nutritionist in the Predimed Plus Study
- ◆ Nutritionist at Eroski
- ◆ Nutritionist at Axis Clinic
- ◆ Professor in Master in Obesity and Comorbidities. Rey Juan Carlos University
- ◆ Professor on the Course of Excellence in Obesity Jimenez Díaz Foundation Hospital - Novo Nordisk
- ◆ Diploma in Human Nutrition and Dietetics Complutense University of Madrid
- ◆ Nutrition in the Elderly Complutense University of Madrid
- ◆ Nutrition and Sport for Professionals Tripartite Foundation

## Professors

### Ms. Guede González, Ana María

- ♦ Diploma in Nursing
- ♦ Diploma in Pediatrics and Childcare
- ♦ Bachelor's Degree in Clinical, Work and Organizational Psychology
- ♦ Expert in international travel, recommendations and vaccinations.
- ♦ La Paz Hospital: Pediatric Emergencies, Burn Unit, Resuscitation of Neonates
- ♦ Niño Jesús Hospital: Pediatric Emergencies
- ♦ 12 DE Octubre Hospital: 7 years in the Pediatric Operating Room, 3 years in the Liver Operating Room, 27 years in Pharmacy Supervision.

### Ms. De Diego Muñoz, Raquel

- ♦ DUE at the Clinical Nutrition and Dietetics Unit of the Hospital Universitario 12 de Octubre, Madrid. Providing nutritional support to hospitalized adult and pediatric patients
- ♦ Higher Technician in Dietetics and Nutrition
- ♦ University Diploma in Nursing, U.C.M.
- ♦ Teaching collaborator in the practical formation of Endocrinology Residents, FIR, EIR and undergraduate students of Clinical Nutrition and Dietetics at the U.C.M.
- ♦ Basic theoretical and practical course on oropharyngeal dysphagia
- ♦ Breastfeeding Course
- ♦ Course on Comprehensive geriatric assessment and social and health care planning
- ♦ Principles of Evidence-Based Nursing Course

### D. Martín, Manuel

- ♦ Endocrinology and Nutrition Service of the Hospital Universitario 12 de Octubre.
- ♦ Diabetic Educator at Hospital Universitario 12 de Octubre
- ♦ Primary Care specialist
- ♦ Expert in Mindfulness in Health Contexts (UCM)

### Ms. García Pérez, Silvia

- ♦ Pulmonology, Endocrinology and Rheumatology Service at 12 de Octubre Hospital. Madrid
- ♦ Higher Technician in Dietetics and Nutrition. San Roque High School Madrid
- ♦ University Diploma in Nursing at Complutense University of Madrid.
- ♦ Internal Medicine Department, 12 de Octubre University Hospital., Spain. Madrid
- ♦ Emergency Department, 12 de Octubre University Hospital. Madrid
- ♦ ICU and Pediatrics Services, 12 de Octubre University Hospital. Madrid
- ♦ Collaborator of the Faculty of Nursing, Physiotherapy and Podiatry of the Complutense University of Madrid, for the teaching of clinical practices of the Nursing Degree



05

# Structure and Content

The structure of the curriculum has been designed by a team of professionals knowledgeable about the implications of the program in nutrition based on clinical practice, aware of the relevance of qualifications and committed to quality teaching through new educational technologies.





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*This Professional Master's Degree in Clinical Nutrition for Nursing contains the most complete and up-to-date program on the market”*

### 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 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 Networks
- 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

- 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 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. Role of the Nursing Professional in the Multidisciplinary Team of the Nutrition Units
- 6.2. Management of Hospital Nutrition Units
  - 6.2.1. Nutrition in the Hospital Setting
  - 6.2.2. Food Safety in Hospitals
  - 6.2.3. Hospital Kitchen Organization
  - 6.2.4. Planning and Managing Hospital Diets. Dietary Code
- 6.3. Hospital Basal Diets
  - 6.3.1. Basal Diet in Adults
  - 6.3.2. Pediatric Base Diet
  - 6.3.3. Lacto-Ovo-Vegetarian Diet
  - 6.3.4. Diet Adapted to Cultural
- 6.4. Therapeutic Hospital Diets
  - 6.4.1. Unification of Diets and Personalized Menus
- 6.5. 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 Esophagogastric 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. National and 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 Relationship with 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 Preterm 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. Infant Malnutrition
  - 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 of Infants and Children with Gastroesophageal Reflux
- 17.3. Nutrition in Acute Diarrhea Situation
- 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. Innate Problems With 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



*An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed"*

06

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

“

*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

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

This university is the first in the world to combine case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.

*The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*





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

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

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

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



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



### Interactive Summaries

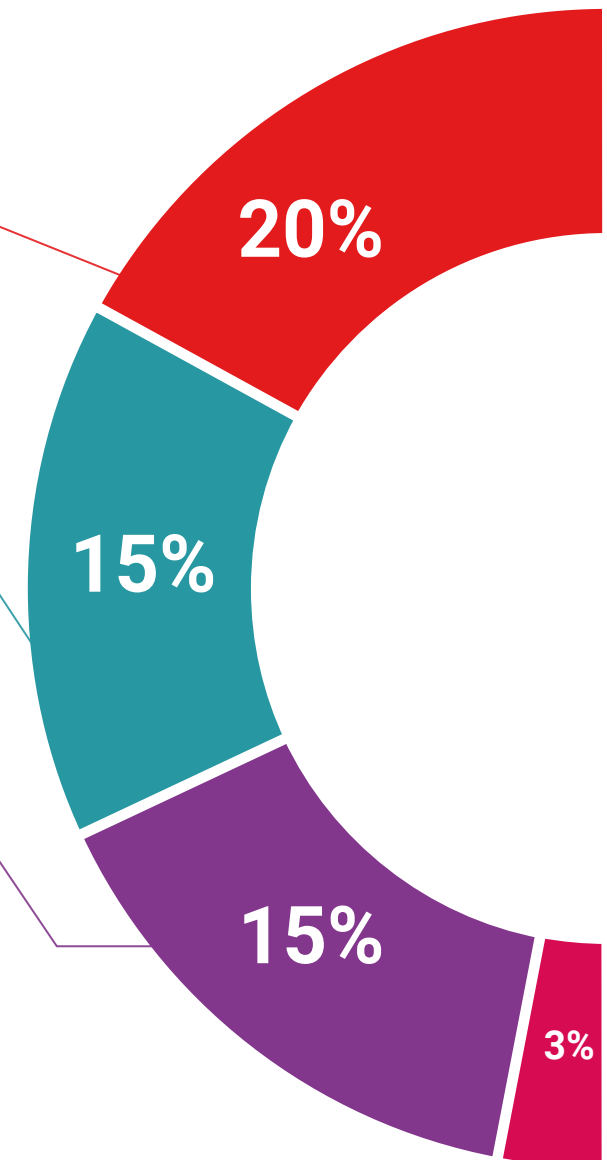
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

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



#### Classes

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

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



#### Quick Action Guides

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



07

# Certificate

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



“

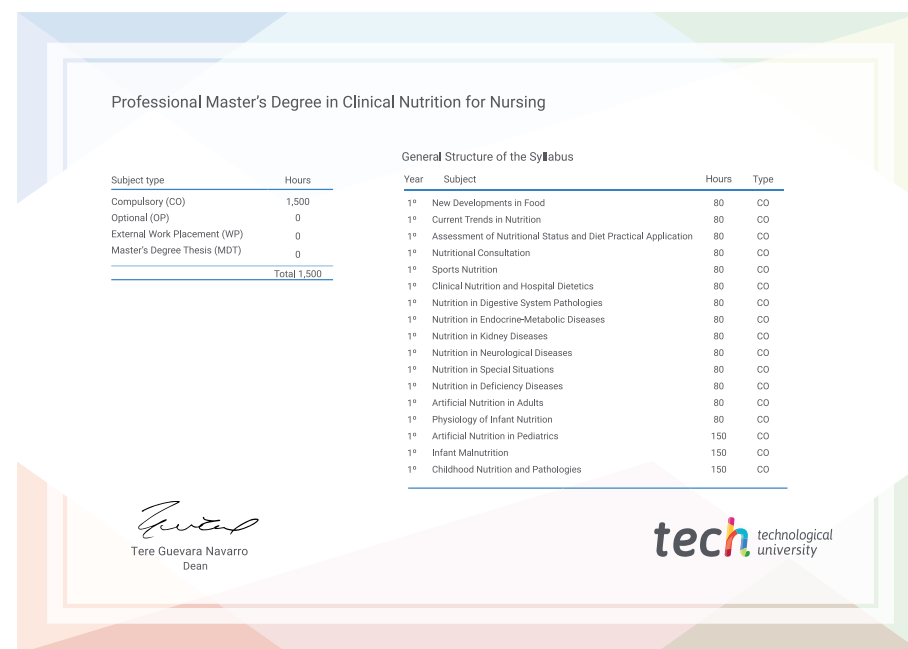
*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This **Professional Master's Degree in Clinical Nutrition for Nurses** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Professional Master's Degree in Clinical Nutrition for Nursing**  
 Official N° of Hours: **1,500 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  
classroom



## Professional Master's Degree

Clinical Nutrition for Nursing

Course Modality: Online

Duration: 12 months.

Certificate: TECH Technological University

Official N° of Hours: 1,500 h.

# Professional Master's Degree Clinical Nutrition for Nursing

