

Advanced Master's Degree Clinical Nutrition for Nursing





Advanced Master's Degree Clinical Nutrition for Nursing

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Accreditation: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/nursingadvanced-master-degree/advanced-master-degree-clinical-nutrition-nursing

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01

Introduction

The application of Clinical Nutrition in the field of Nursing offers significant benefits for patients and health professionals. First, it allows for comprehensive care, addressing not only immediate medical needs, but also those related to food and diet, which contributes to improving the patient's overall well-being. In addition, Clinical Nutrition applied by specialized nurses can help prevent complications related to malnutrition, accelerate recovery after medical procedures and promote a healthy lifestyle in the long term. In this context, TECH has designed this comprehensive program, 100% online, which will allow graduates to connect anywhere and at any time, under the Relearning methodology.



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With this 100% online Advanced Master's Degree, you will develop advanced competencies in nutritional assessment, personalized diet planning and management of complex clinical situations related to nutrition and health”

Clinical Nutrition applied in the field of Nursing allows the integration of nutritional knowledge in Nursing care, promoting a better understanding of the relationship between food and health, allowing to effectively address the specific dietary needs of each individual. This translates into an optimization of patient recovery, a reduction of complications associated with malnutrition and an overall improvement in quality of life.

This is how this Advanced Master's Degree is born, aimed at nurses, which will address a variety of fundamental topics to understand the relationship between nutrition and health. Therefore, this academic program will include modules on nutritional status assessment, pathophysiology of diet-related diseases, specific nutritional therapy for various medical conditions and strategies to promote adherence to therapeutic diets.

Likewise, the management of Chronic Diseases and complex medical conditions will be deepened through specific nutritional interventions. In this way, professionals will analyze how diet can influence the prevention and treatment of diseases such as Diabetes, Obesity, Cardiovascular Diseases and Cancer. Through the study of real clinical cases, they will acquire the skills to design and implement dietary plans that optimize the health and well-being of patients.

Finally, emphasis will be placed on research and professional development, delving into the scientific evidence behind nutritional interventions, evaluating the quality of research in Nutrition and developing skills to conduct research projects in Clinical Nutrition. This will allow graduates to keep up to date on advances in the field of Nutrition.

This program, accessible through the Internet, will give students the freedom to participate from any location and at any time that best suits their needs. Based on the Relearning methodology, a pioneer in TECH, it will guarantee an enriching learning experience. In addition, students will have access to exclusive Masterclasses, led by internationally renowned experts in Clinical Nutrition, Genomics and Human Microbiota.

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

- ♦ The development of case studies presented by experts in Clinical Nutrition in Nursing
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in Clinical Nutrition in Nursing
- ♦ 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



The exclusive Masterclasses of this program are led by international experts, pioneers in the therapeutic integration of scientific advances in Clinical Nutrition, Genomics and Human Microbiota”

“

As a nurse, Clinical Nutrition will enable you to prevent and manage Chronic Diseases, as well as the promotion of healthy eating habits throughout the life cycle”

Its teaching staff includes professionals from the sector who bring their work experience to this program, in addition to recognized specialists from leading societies and 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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will explore topics such as nutrition-related pharmacology, complex clinical case management and effective communication with patients and health care teams.

You'll delve into fundamental aspects of Nutrition, such as digestive physiology, nutrient metabolism and specific dietary needs in different life stages and health conditions.



02 Objectives

The objective of this Advanced Master's Degree will be to provide nurses with advanced specialization in Nutrition to improve the quality of health care. Therefore, this program will delve into the fundamental principles of Nutrition and its application in the clinical context, enabling professionals to perform accurate nutritional assessments, design individualized meal plans and effectively manage complex clinical situations related to nutrition and health. In addition, the development of leadership, research and teamwork skills will be fostered, so that graduates can play an active role in promoting healthy lifestyles.



“

You will be specialized in nutritional assessment and diagnosis, as well as in the planning and implementation of personalized dietary interventions”



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 their application to child and adult pathologies
- ♦ Acquire theoretical knowledge of human population genetics
- ♦ Know Genomic and Precision Nutrition in order to be able to apply them in clinical practice, including their trajectory and the key studies that contributed to their development
- ♦ Know in which pathologies and conditions of human life Genomic and Precision Nutrition can be applied
- ♦ Evaluate the individual response to Nutrition and dietary patterns in order to promote health and disease prevention
- ♦ Analyze new concepts and future trends in the field of Genomic and Precision Nutrition
- ♦ Tailor personalized dietary and lifestyle habits according to genetic polymorphisms
- ♦ Offer a complete and wide vision of the current situation in the area of Human Microbiota, in its broadest sense
- ♦ Argue how nowadays a privileged position is being given to the Microbiota and its interaction with many non-digestive, autoimmune pathologies, or its relationship with immune system deregulation and disease prevention
- ♦ Promote work strategies based on the integral approach of the patient as a reference model, not only focusing on the symptomatology of the specific pathology, but also looking at its interaction with the microbiota and how it may be influencing it
- ♦ Incorporate advanced and innovative knowledge in food and nutrition into clinical practice
- ♦ Revise the fundamental aspects of healthy eating, with a current approach aimed at risk prevention
- ♦ Delve into the correct management of daily nutrition
- ♦ Examine the most common syndromes and symptoms related to nutritional problems



You will be able to work on the prevention of diet-related diseases and the improvement of patient health outcomes in a variety of health care settings”



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

- ◆ Review the new dietary guidelines, nutritional objectives, and recommended dietary allowances (RDA)
- ◆ Explain the proper reading of new food labeling
- ◆ Incorporate phytotherapy as a coadjuvant treatment in clinical practice
- ◆ Identify and classify foods, food products, and food ingredients
- ◆ Review current trends in premature infant nutrition
- ◆ Explain the latest evidence on food allergies and intolerances



Module 3. Nutrigenetics I

- ♦ Acquire the latest knowledge on population genetics
- ♦ Understand how the basis for the interaction between genetic variability and diet is generated
- ♦ Introducing the advanced Circadian Control System and Central and Peripheral Clocks

Module 4. Nutrigenetics II Key Polymorphisms

- ♦ Present the key polymorphisms to date related to human nutrition and metabolic processes that the health practitioner needs to learn
- ♦ Analyze the key studies that support these polymorphisms and the debate, where it exists

Module 5. Nutrigenetics III

- ♦ Present the Key Polymorphisms to date related to Complex Diseases that depend on Nutritional Habits
- ♦ Introduce new Advanced Concepts in Nutrigenetic Research

Module 6. Nutrigenomics

- ♦ Deepen in the Differences between Nutrigenetics and Nutrigenomics
- ♦ Present and analyze genes related to metabolic processes affected by Nutrition

Module 7. Metabolomics-Proteomics

- ♦ Know the Principles of Metabolomics and Proteomics
- ♦ Delve into the Microbiota as a Tool for Preventive and Personalized Nutrition

Module 8. Laboratory Techniques for Nutritional Genomics

- ♦ Understand the techniques used in Nutritional Genomics Studies
- ♦ Acquire the latest advances in omics and bioinformatics techniques

Module 9. Epigenetics

- ♦ Explore the fundamentals of the relationship between epigenetics and nutrition
- ♦ Present and analyze how MicroRNAs are involved in Nutritional Genomics

Module 10. The Relationship between Intolerances/Allergies and the Microbiota

- ♦ Know how a negative modulation in the microbiota can favor the appearance of food intolerances and allergies
- ♦ Deepen in the changes in the microbiota in patients with food exclusion diets such as gluten

Module 11. Nutrition in Overweight, Obesity and their Comorbidities

- ♦ Adequate assessment of the clinical case, interpretation of causes of overweight and obesity, comorbidities and risks
- ♦ Calculate and individually prescribe the different models of hypocaloric diets.
- ♦ Plan consultations and multidisciplinary team in obesity

Module 12. Nutrition in Digestive Tract Pathologies

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

Module 13. Nutrition in Endocrine-Metabolic Diseases

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

Module 14. Nutrition in Nervous System Pathologies

- ◆ Update on the scientific evidence of the relationship between nervous system pathologies and nutrition
- ◆ Assess the patient's needs and difficulties, in addition to an adequate assessment of the nutritional status
- ◆ Learn the main psychological aspects of patients with alterations of behavioral disorders

Module 15. Nutrition in Kidney Diseases

- ◆ Explore glomerular conditions and tubulopathies
- ◆ In-depth study of chronic renal insufficiencies
- ◆ Investigate the underlying pathophysiological mechanisms of Kidney Diseases
- ◆ Develop and implement strategies for prevention and early management of Chronic Renal Failure

Module 16. 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 17. 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 18. Artificial Nutrition in Adults

- ◆ Distinguish enteral and parenteral nutrition with their main characteristics
- ◆ Know the advances in home artificial Nutrition
- ◆ Improve the nutritional status and quality of life of patients through different types of Nutrition
- ◆ Establish updated protocols for the prescription and follow-up of Nutrition
- ◆ Optimize nutritional care for patients

Module 19. Physiology of Infant Nutrition

- ◆ Update the drug-nutrient interaction and its implication in the patient's treatment
- ◆ Identify the relationship between nutrition and immune status
- ◆ Define the fundamental of Nutrigenetics and Nutrigenomics
- ◆ Review the psychological bases and biopsychosocial factors that affect human eating behavior
- ◆ Explain the relationship of physiology and Nutrition in the different stages of infant development
- ◆ Describe the main malabsorption syndromes and how they are treated

Module 20. Artificial Nutrition in Pediatrics

- ◆ Perform nutritional assessment in Pediatrics
- ◆ Reflect on the role of human milk as a functional food
- ◆ Describe new formulas used in infant feeding
- ◆ Incorporate into clinical practice the different techniques and products of basic and advanced nutritional support related to pediatric nutrition
- ◆ Evaluate and monitor the supervision of children on nutritional support

Module 21. Infant Malnutrition

- ♦ Predict patients' nutritional risk
- ♦ Early detection and evaluation of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- ♦ Identify children at nutritional risk who are eligible for specific support
- ♦ Identify children suffering from malnutrition
- ♦ Describe the correct nutritional support for a malnourished child
- ♦ Classify the different types of malnutrition and their impact on the developing organism
- ♦ Identify the appropriate nutritional therapy for pediatric patients with chronic pulmonary pathology

Module 22. Childhood Nutrition and Pathologies

- ♦ Analyze the implications of nutrition in the growth process and in the prevention and treatment of different childhood pathologies
- ♦ Explain current trends in the nutrition of infants with delayed intrauterine growth and the implication of nutrition on metabolic diseases
- ♦ Reflect on the etiology, repercussions, and treatment of childhood obesity
- ♦ Explain the nutritional treatment of the most common deficiency diseases in our environment
- ♦ Define the role that fats play in children's diets
- ♦ Assess the psychological and physiological aspects involved in eating disorders in young children
- ♦ Review the pathogenesis and update the treatment of inborn errors of metabolism

- ♦ Identify exclusion foods in the diets of children with celiac disease
- ♦ Identify dietary factors related to bone metabolism
- ♦ Explain managing children with gastroesophageal reflux
- ♦ Describe the main malabsorption syndromes and how they are treated

Module 23. Childhood Nutrition and 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
- ♦ Calculate child and adolescent athlete dietary needs and risks
- ♦ Reflect on new trends and models in infant feeding
- ♦ Reflect and identify risk factors in school and adolescent nutrition
- ♦ Identify eating behavior disorders
- ♦ Explain the treatment of dyslipidemias and the role that nutrition plays in their genesis and treatment
- ♦ Manage diabetic children's diet
- ♦ Assess the nutritional support of children with cancer in different situations
- ♦ Reflect on the role of nutrition in autistic children
- ♦ Review the rationale for dietary support of acute diarrhea
- ♦ Describe the management of nutritional support in inflammatory diseases
- ♦ Reflect on the relationship between constipation and infant nutrition
- ♦ Define the dietary management of children with nephropathy
- ♦ Review the dietary management of oral cavity pathologies in children
- ♦ Explain the implications that nutrition can have in the treatment of liver diseases

Module 24. 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
- ♦ Treat common eating disorders in sports such as vigorexia, orthorexia or anorexia

Module 25. Assessment of Nutritional Status and Calculation of Personalized Nutritional Plans, Recommendations and Monitoring

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

Module 26. 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 clients that a nutritional practice should manage
- ♦ Delve into the techniques of interviewing and dietary counseling for the patient

Module 27. Probiotics, Prebiotics, Microbiota, and Health

- ♦ Delve into probiotics, their definition, history, mechanisms of action
- ♦ Delve into Prebiotics, their definition, types of Prebiotics and mechanisms of action
- ♦ Know the clinical applications of probiotics and prebiotics in Gastroenterology
- ♦ Know the Clinical Applications of Endocrinology and Cardiovascular Disorders
- ♦ Understand the clinical applications of probiotics and prebiotics in Urology
- ♦ Understand the clinical applications of probiotics and prebiotics in Gynecology
- ♦ Know the clinical applications of Probiotics and Prebiotics in Immunology: autoimmunity, Pneumology, Dermatology, vaccines
- ♦ Know the clinical applications of probiotics and prebiotics in nutritional diseases
- ♦ Know the clinical applications of probiotics and prebiotics in neurological diseases, mental health, and elderly
- ♦ Understand the clinical applications of Probiotics and Prebiotics in critically ill cancer patients
- ♦ Understand the use of dairy products as a natural source of Probiotics and Prebiotics
- ♦ Delve into the safety and legislation in the use of Probiotics

Module 28. Nutrition for Health, Equity and Sustainability

- ♦ Analyze the scientific evidence regarding the impact of food on the environment
- ♦ Learn about current legislation in the food industry and consumption
- ♦ Assess the health effects derived from the current food model and the consumption of ultra-processed food

03 Skills

Through this Advanced Master's Degree, nurses will acquire advanced skills in the assessment of patients' nutritional status, as well as in the interpretation of clinical data related to nutrition and health. In addition, they will design and implement nutritional intervention plans tailored to the individual needs of patients, considering factors such as age, health status and food preferences. They will also foster the development of effective communication and teamwork skills, facilitating interdisciplinary collaboration with other health professionals to ensure comprehensive and coordinated care.



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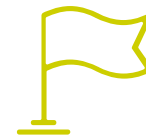
This comprehensive program will promote critical thinking and analytical skills, as well as the use of up-to-date scientific evidence to inform clinical practices based on the best available evidence”



General Skills

- ◆ Possess and understand knowledge that allows originality 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 contexts
- ◆ 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
- ◆ Acquire study skills that will enable further study in a largely self-directed or autonomous manner
- ◆ Conduct individual reflective work on new nutrigenetics and Precision Nutrition data
- ◆ Study and evaluate current controversial issues on this subject
- ◆ Evaluate and use commercially available Nutritional Genomics and Precision Nutrition tools in their clinical practice
- ◆ Perform comprehensive nutritional assessments that take into account the psychological, social and pathological aspects of the patient
- ◆ Adapt dietary plans to the most recent advances in Diet Therapy
- ◆ Apply diets and dietary therapy planning to the field of prevention, clinic and education





Specific Skills

- ◆ Design a dietary plan of phytotherapy as an adjuvant treatment
- ◆ 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
- ◆ 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
- ◆ Distinguish dietary management of patients with debilitating neuromuscular pathology and cerebrovascular accidents
- ◆ Analyze the importance of nutrition in childhood growth processes
- ◆ Determine how to calculate the dietary needs and risks of child and adolescent athletes
- ◆ Design an assessment and monitoring plan for children with nutrition support
- ◆ Analyze the differences between probiotic and prebiotic foods and their application in the infant stage
- ◆ Develop correct nutritional support for malnourished children
- ◆ Address the psychological and physiological aspects involved in eating disorders in young children

- ◆ Determine the correct dietary management of diabetic and oncological children at different stages of the disease
- ◆ Determine the calculation of the nutritional needs and risks of children and adolescent athletes in order to guarantee adequate growth and development
- ◆ Design an evaluation and monitoring plan for children on nutritional support to determine their adequacy
- ◆ Analyze the differences between probiotic and prebiotic foods in order to determine their application in the infant stage
- ◆ Develop a correct nutritional support for the malnourished child in order to reverse this situation and avoid later complications
- ◆ Address the psychological and physiological aspects involved in eating disorders in young children
- ◆ Apply critical, logical and scientific thinking to nutritional recommendations
- ◆ Acquire the latest advances in nutritional research
- ◆ Integrate knowledge and deal with the complexity of data, evaluate relevant literature to incorporate scientific advances into your own professional field
- ◆ Deepen in the analysis of different types of studies in genetic epidemiology in order to be able to perform an adequate interpretation of the articles published in this field





- ◆ Update and broaden the knowledge of students with special training and interest in Probiotic Therapy, Prebiotic Therapy and the latest advances in this field
- ◆ Detect the patient's nutritional risks and needs from a holistic point of view
- ◆ Perform dietary planning and assess psychological and quality of life aspects with adapted dietary recommendations
- ◆ Plan nutritional treatment based on scientific evidence in pathologies of the digestive system
- ◆ Apply dietary measures to improve symptoms and quality of life
- ◆ Create a flexible and personalized nutritional plan according to the patient's own demands

04

Course Management

The teachers of this Advanced Master's Degree are highly qualified and experienced professionals in the field of Nutrition and Nursing. In fact, they combine solid academic specialization with practical experience in various health fields, which will allow them to offer a complete and up-to-date perspective on the topics covered in the program. In addition, their commitment to academic excellence and the professional development of graduates will contribute significantly to the quality and relevance of the program.





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Thanks to their experience and leadership, the faculty will provide you with specialized knowledge, so that you will reach your full potential as a future Clinical Nutrition Nursing professional”

International Guest Director

Harry Sokol, M.D. is internationally recognized in the field of Gastroenterology for his research on Intestinal Microbiota. With more than 2 decades of experience, he has established himself as a true scientific authority thanks to his numerous studies on the role of microorganisms in the human body and their impact on chronic inflammatory bowel diseases. In particular, his work has revolutionized medical understanding of this organ, often referred to as the “second brain”.

Among Dr. Sokol's contributions, he and his team have opened a new line of advances on the bacterium *Faecalibacterium prausnitzii*. In turn, these studies have led to crucial discoveries about its anti-inflammatory effects, opening the door to revolutionary treatments.

In addition, the expert is distinguished by his commitment to the dissemination of knowledge, whether by teaching academic programs at the Sorbonne University or by publishing works such as the comic book *The Extraordinary Powers of the Belly*. His scientific publications appear continuously in world-renowned journals and he is invited to specialized congresses. At the same time, he carries out his clinical work at the Saint-Antoine Hospital (AP-HP/University Hospital Federation IMPEC/Sorbonne University), one of the most renowned hospitals in Europe.

In addition, Dr. Sokol began his medical studies at the Paris Cité University, showing early on a strong interest in health research. A chance meeting with the eminent Professor Philippe Marteau led him to Gastroenterology and the enigmas of the Intestinal Microbiota. Throughout his career, he also broadened his horizons by specializing in the United States, at Harvard University, where he shared experiences with leading scientists. Upon his return to France, he founded his own team where he investigates Fecal Transplantation, offering state-of-the-art therapeutic innovations.



Dr. Sokol, Harry

- Director of Microbiota, Gut and Inflammation at Sorbonne University, Paris, France
- Specialist Physician at the Gastroenterology Department of the Saint-Antoine Hospital (AP-HP), Paris, France
- Group Leader at the Institut Micalis (INRA)
- Coordinator of the Center of Microbiome Medicine of Paris FHU
- Founder of the pharmaceutical company Exeliom Biosciences (Nextbiotix)
- President of the Fecal Microbiota Transplantation Group
- Medical Specialist in different hospitals in Paris
- PhD in Microbiology at the Université Paris-Sud
- Postdoctoral stay at the Massachusetts General Hospital, Harvard University Medical School
- Degree in Medicine, Hepatology and Gastroenterology at Université Paris Cité

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Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice”

International Guest Director

Dr. Caroline Stokes is a specialist in Psychology and Nutrition, with a PhD and a qualification in Medical Nutrition. After a distinguished career in this field, She leads the Food and Health Research at the Humboldt University of Berlin. This team collaborates with the Department of Molecular Toxicology at the German Institute of Human Nutrition Potsdam-Rehbrücke. Previously, she has worked at the Medical School of Saarland University in Germany, the Cambridge Medical Research Council and the UK National Health Service.

One of her goals is to find out more about the fundamental role that Nutrition plays in improving the overall health of the population. To this end, she has focused on elucidating the effects of fat-soluble vitamins

of fat-soluble vitamins such as A, D, E and K, the Amino Acid Methionine, lipids such as omega-3 fatty acids and probiotics in both the prevention and treatment of diseases, particularly those related to hepatology, neuropsychiatry and aging.

Her other lines of research have focused on plant-based diets for the prevention and treatment of diseases, including liver and psychiatric diseases. She has also studied the spectrum of vitamin D metabolites in health and disease. She has also participated in projects to analyze new sources of vitamin D in plants and to compare the luminal and mucosal microbiome.

In addition, Dr. Caroline Stokes has published a long list of scientific papers. Some of her areas of expertise are Weight Loss, Microbiota and Probiotics, among others.

The outstanding results of her research and her constant commitment to her work have led to her winning the National Health Service Journal Award for the Nutrition and Mental Health Program in the UK.



Dr. Stokes, Caroline

- Head of the Food and Health Research Group at the Humboldt University of Berlin, Germany
- Researcher at the German Institute of Human Nutrition, Potsdam-Rehbruecke, Germany
- Professor of Food and Health at the Humboldt University of Berlin
- Scientist in Clinical Nutrition at the University of Saarland
- Nutrition Consultant at Pfizer
- PhD in Nutrition at the University of Saarland
- Postgraduate Diploma in Dietetics at King's College London, University of London
- Master's Degree in Human Nutrition from the University of Sheffield

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Do you want to update your knowledge with the highest educational quality? TECH offers you the most updated content in the academic market, designed by authentic experts of international prestige”

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 Directorate 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 program of work on Food, Nutrition and Education in India, led by Cambridge University 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, his leadership skills have been demonstrated 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 personnel worldwide. In this regard, he has shared his scientific findings in numerous lectures and conferences, in which he has participated in different countries.



Dr. Sumantra, Ray

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



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

Guest Directors



Dr. Sánchez Romero, María Isabel

- ♦ Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid
- ♦ PhD in Medicine and Surgery by the University of Salamanca
- ♦ Medical Specialist in Clinical Microbiology and Parasitology
- ♦ Member of the Spanish Society of Infectious Diseases and Clinical Microbiology
- ♦ Technical Secretary of the Madrid Society of Clinical Microbiology



Dr. Portero Azorín, María Francisca

- ♦ Acting Head of the Microbiology Service at the Puerta de Hierro Majadahonda University Hospital
- ♦ Specialist in Microbiology and Clinical Parasitology at the Puerta de Hierro University Hospital
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Postgraduate in Clinical Management by Gaspar Casal Foundation
- ♦ Research stay at the Presbyterian Hospital of Pittsburg through a FISS scholarship



Dr. Alarcón Cavero, Teresa

- Biologist Specialist in Microbiology, Princesa University Hospital
- Head of Group 52 of the Research Institute of the La Princesa Hospital
- Degree in Biological Sciences with a major in Fundamental Biology from the Complutense University of Madrid
- Master's Degree in Medical Microbiology from the Complutense University of Madrid



Dr. Muñoz Algarra, María

- Head of Patient Safety at the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital
- Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid
- Collaborator Department of Preventive Medicine and Public Health and Microbiology Autonomous University of Madrid
- Doctorate in Pharmacy from the Complutense University of Madrid



Dr. López Dosil, Marcos

- Area Specialist in Microbiology and Parasitology at San Carlos Clinical University Hospital
- Specialist Physician of the Microbiology and Parasitology Department of the Hospital de Móstoles
- Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University
- Master's Degree in Tropical and Health Medicine from the Autonomous University of Madrid
- Expert in Tropical Medicine from the Autonomous University Madrid



Mr. Anel Pedroche, Jorge

- Facultative Area Specialist. Microbiology Department, Puerta de Hierro University Hospital, Majadahonda, Spain
- Degree in Pharmacy from the Complutense University of Madrid
- Course in Interactive Sessions on Hospital Antibiotherapy by MSD
- Updating course on infection in hematologic patients by Puerta del Hierro Hospital
- Attendance at the XXII Congress of the Spanish Society of Infectious Diseases and Clinical Microbiology

Management



Dr. Montoya Álvarez, Teresa

- ♦ Head of the Endocrinology and Nutrition Service of the Infanta Elena University Hospital
- ♦ Head of Volunteering at the Garrigou Foundation
- ♦ Graduate in Medicine and Surgery from the University of Navarra
- ♦ Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis and Integral Treatment at the University Rey Juan Carlos
- ♦ Course in Bariatric Antecedents of Surgery Patient Emergencies: Key References for the Attending Physician
- ♦ Member of: Institute for Health Research Foundation Jiménez Díaz, Health Commission of FEAPS Madrid and Trisomy 21 Research Society



Dr. Aunió 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 (Editorial Médica Panamericana)
- ♦ Pharmacist with extensive experience in the public and private sector.
- ♦ Head Pharmacist
- ♦ Assistant Pharmacist. Pharmacy Chain. British Health and Beauty Retailers Boots UK. Oxford Street Central London
- ♦ Bachelor 's Degree in Food Science and Technology. University of Valencia
- ♦ Direction of the Dermocosmetic University Course. Pharmacy Office



Ms. Fernández Montalvo, María Ángeles

- ♦ Head of Naintmed- Integrative Nutrition and Medicine
- ♦ Director of the Master's Degree in Human Microbiota at CEU University
- ♦ Parapharmacy Manager, Nutrition and Natural Medicine professional at Natural Life Parapharmacy
- ♦ Degree in Biochemistry from the University of Valencia
- ♦ Diploma in Natural and Orthomolecular Medicine
- ♦ Postgraduate in Food, Nutrition and Cancer: prevention and treatment
- ♦ Master's Degree in Integrative Medicine from CEU University
- ♦ Specialist Degree in Nutrition, Dietetics and Diet Therapy
- ♦ Expert in Vegetarian, Clinical, and Sports Nutrition
- ♦ Expert in the current use of Nutricosmetics and Nutraceuticals in general



Dr. Vázquez Martínez, Clotilde

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



Dr. Sánchez Jiménez, Álvaro

- ♦ Specialist in Nutrition and Endocrinology at Jiménez Díaz Foundation University Hospital
- ♦ 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 of the Master's Degree in Obesity and Comorbidities at the Rey Juan Carlos University
- ♦ Professor at the Course of Excellence in Obesity at the University Hospital Fundación Jimenez Díaz
- ♦ Graduate in Human Nutrition and Dietetics from the Complutense University of Madrid.
- ♦ Nutrition and Food for the Elderly by the Complutense University of Madrid
- ♦ Nutrition and Sports for Professionals by the Fundación Tripartita
- ♦ Refresher Course on Practical Diabetes Type 1 and 2 for Health Professionals



Dr. Konstantinidou, Valentini

- ◆ Dietitian-Nutritionist Specialist in Nutrigenetics and Nutrigenomics
- ◆ Founder of DNANutricoach
- ◆ Creator of the Food Coaching method to change eating habits
- ◆ Lecturer in Nutrigenetics
- ◆ PhD in Biomedicine
- ◆ Dietitian- Nutritionist
- ◆ Food Technologist
- ◆ Accredited Life Coach of the British body IPAC&M
- ◆ Member of: American Society for Nutrition

Professors

Mr. Anglada, Roger

- ◆ Research Support Technician at the Genomics Service of UPF
- ◆ Senior Research Support Technician at the Genomics Service of Pompeu Fabra University
- ◆ Senior Technician in Analysis and Control. Narcís Monturiol HSI, Barcelona
- ◆ Co-author of Different scientific publications
- ◆ Graduate in Multimedia, Catalunya Open University

Ms. López Martínez, Rocío

- ◆ Physician in the area of Immunology at the Vall d'Hebron Hospital
- ◆ Internal Biologist in Immunology at Central University Hospital of Asturias
- ◆ Master in Biostatistics and Bioinformatics, Universidad Oberta of Catalunya

Ms. Bueno García, Eva

- ◆ Predoctoral researcher in Immunosenescence at the Immunology Service of the Central University Hospital of Asturias (HUCA)
- ◆ Degree in Biology from the University of Oviedo
- ◆ Master's Degree in Biomedicine and Molecular Oncology from the University of Oviedo
- ◆ Molecular biology and immunology courses

Ms. Manso del Real, Paula

- ♦ Deputy Director of Nursing at the Íñigo Álvarez de Toledo Renal Foundation
- ♦ Nursing Supervisor of the Dialysis Unit of the Íñigo Álvarez de Toledo Renal Foundation
- ♦ Nephrology Nurse at the Nephrology Unit of the Jiménez Díaz Foundation University Hospital
- ♦ Diploma in Nursing at the Francisco de Vitoria University
- ♦ Degree in International Cooperation and Health Promotion at the Francisco de Vitoria University
- ♦ Degree in International Cooperation and Health Promotion at the Francisco de Vitoria University
- ♦ Master's Degree in Hemodialysis for Nursing at the Complutense University of Madrid

Dr. Alonso Arias, Rebeca

- ♦ Director of the Immunosenescence research group of the HUCA Immunology Service
- ♦ Specialist Immunology Physician at the Central University Hospital of Asturias
- ♦ Numerous publications in international scientific journals
- ♦ Research work on the association between the microbiota and the immune system
- ♦ 1st National Award for Research in Sports Medicine, 2 occasions

Dr. García Santamarina, Sarela

- ♦ Group Leader at the Institute of Chemical and Biological Technology of the New University of Lisbon
- ♦ Marie Curie EIPPOD Postdoctoral Researcher for: Effects of Drugs on Intestinal Flora, at the European Molecular Biology Laboratory (EMBL) in Heidelberg, Germany
- ♦ Postdoctoral Researcher for: Mechanisms of Copper Homeostasis in the Interaction between the Fungal Pathogen *Cryptococcus Neoformans* and the Host, Duke University USA
- ♦ PhD in Biomedicine Research from the Pompeu Fabra University of Barcelona
- ♦ Degree in Chemistry with a major in Organic Chemistry, University of Santiago of Compostela
- ♦ Master's Degree in Molecular Biology of Infectious Diseases from the London School of Hygiene & Tropical Medicine in London
- ♦ Master's Degree in Biochemistry and Molecular Biology, Autonomous University of Barcelona

Dr. Uberos, José

- ♦ Head of section in the Neonatology area of the San Cecilio Clinical Hospital of Granada
- ♦ Specialist in Pediatrics and Child Care
- ♦ Associate Professor of Pediatrics, University of Granada
- ♦ Vocal Bioethics Research Committee of the Province of Granada (Spain)
- ♦ Coeditor of the Signs and Symptoms Journal
- ♦ Professor Antonio Galdo Award. Society of Pediatrics of Eastern Andalucía
- ♦ Editor of the Journal of the Pediatric Society of Eastern Andalusia (Bol. SPAO)
- ♦ Doctor of Medicine and Surgery
- ♦ Degree in Medicine from the University of Santiago de Compostela
- ♦ Member of the Board of the Pediatric Society of Eastern Andalusia

Dr. Verdú López, Patricia

- ♦ Medical Specialist in Allergology at the Beata María Ana Hospital of Hermanas Hospitalarias
- ♦ Physician specializing in Allergology at Inmunomet Health and Integral Wellness Center
- ♦ Research physician in Allergology at San Carlos Hospital
- ♦ Specialist in Allergology at the University Hospital Dr. Negrín in Las Palmas of Gran Canaria
- ♦ Degree in Medicine from the University of Oviedo
- ♦ Master's Degree in Aesthetics and Antiaging Medicine at Complutense La University of Madrid

Ms. Rodríguez Fernández, Carolina

- ♦ Biotechnology Researcher at Adknoma Health Research
- ♦ Master in Clinical Trials Monitoring by ESAME Pharmaceutical Business School
- ♦ Master's Degree in Food Biotechnology from the University of Oviedo
- ♦ University Expert in Digital Teaching in Medicine and Health by CEU Cardenal Herrera University

Dr. Gonzalez Rodríguez, Silvia Pilar

- ♦ Deputy Medical Director, Research Coordinator and Clinical Chief of the Menopause and Osteoporosis Unit at Gabinete Médico Velázquez
- ♦ Specialist in Gynecology and Obstetrics at HM Gabinete Velázquez
- ♦ Medical Expert at Bypass Comunicación en Salud, SL
- ♦ Key Opinion Leader of several international pharmaceutical laboratories
- ♦ Doctor in Medicine and Surgery from the University of Alcalá de Henares, specializing in Gynecology
- ♦ Specialist in Mastology by the Autonomous University of Madrid
- ♦ Master's Degree in Sexual Orientation and Therapy from the Sexological Society of Madrid
- ♦ Master's Degree in Climacteric and Menopause from the International Menopause Society
- ♦ Postgraduate Diploma in Epidemiology and New Applied Technologies from the UNED (Spanish Distance Learning University)
- ♦ University Diploma in Research Methodology from the Foundation for the Training of the Medical Association and the National School of Health of the Carlos III Health Institute

Dr. Rioseras de Bustos, Beatriz

- ♦ Microbiologist and renowned researcher
- ♦ Resident in immunology at HUCA
- ♦ Member of the Biotechnology of Nutraceuticals and Bioactive Compounds Research Group (Bionuc) of the University of Oviedo
- ♦ Member of the Microbiology Area of the Department of Functional Biology.
- ♦ Residency in the Southern Denmark University
- ♦ Doctorate in Microbiology from the University of Oviedo
- ♦ Master's Degree in Research in Neuroscience by the University of Oviedo

Dr. Lombó Burgos, Felipe

- ♦ PhD in Biology
- ♦ Head of the BIONUC Research Group, University of Oviedo.
- ♦ Former Director of the Research Support Area of the AEI Project
- ♦ Member of the Microbiology Area of the University of Oviedo
- ♦ Co-author of the research Biocidal nanoporous membranes with inhibitory activity of biofilm formation at critical points in the production process of the dairy industry
- ♦ Head of the study on 100% natural acorn-fed ham against inflammatory bowel diseases
- ♦ Speaker III Congress of Industrial Microbiology and Microbial Biotechnology

Dr. Álvarez García, Verónica

- ♦ Assistant Physician of the Digestive Area at the Río Hortega University Hospital
- ♦ Specialist in Digestive System at the Central Hospital of Asturias
- ♦ Speaker at the XLVII Congress SCLECARTO
- ♦ Degree in Medicine and Surgery
- ♦ Digestive System Specialist

Dr. Gabaldon Estevani, Toni

- ♦ IRB and BSC senior group leader
- ♦ Co-founder and Scientific Advisor (CSO) of Microomics SL
- ♦ ICREA Research Professor and Group Leader of the Comparative Genomics Laboratory
- ♦ Doctor of Medical Sciences, Radboud University Nijmegen
- ♦ Corresponding Member of the Royal National Academy of Pharmacy of Spain
- ♦ Member of the Spanish Young Academy

Dr. Modroño Móstoles, Naiara

- ♦ Specialist in Endocrinology
- ♦ Doctor Specialist in Pediatric Endocrinology and Nutrition at the University Hospital Fundación Jimenez Diaz
- ♦ Doctor Specialist in Endocrinology the Infanta Elena University Hospital
- ♦ Doctor Specialist in Endocrinology at the University Hospital of Getafe
- ♦ Author of various articles published in scientific journals
- ♦ Postgraduate Certificate in Treatment of Diabetes Mellitus Type 2 at the Autonomous University of Barcelona

Dr. Fernández Madera, Juan Jesus

- ♦ Allergologist at HUCA
- ♦ Former Head of the Allergology Unit, Monte Naranco Hospital, Oviedo.
- ♦ Allergology Service, Central University Hospital of Asturias
- ♦ Member of: Board of Directors of Alergonorte, Scientific Committee of Rhinoconjunctivitis of the SEIC and Advisory Committee of Medicinatv.com

Dr. Méndez García, Celia

- ♦ Biomedical Researcher at Novartis Laboratories in Boston, USA
- ♦ Doctorate in Microbiology from the University of Oviedo
- ♦ Member of the North American Society for Microbiology

Dr. Narbona López, Eduardo

- ♦ Speciality Neonatal Unit, San Cecilio University Hospital
- ♦ Advisor to the Department of Pediatrics, University of Granada
- ♦ Member of: Pediatric Society of Western Andalusia and Extremadura, Andalusian Association of Primary Care Pediatrics

Dr. López Vázquez, Antonio

- ♦ Area Specialist in Immunology, Central University Hospital of Asturias, Spain
- ♦ Collaborator of the Carlos III Health Institute
- ♦ Advisor of Aspen Medical
- ♦ Doctor of Medicine, University of Oviedo

Dr. Losa Domínguez, Fernando

- ♦ Gynecologist at the Sagrada Familia Clinic of HM Hospitals
- ♦ Doctor in private practice in Obstetrics and Gynecology in Barcelona
- ♦ Expert in Gynecoesthetics by the Autonomous University of Barcelona
- ♦ Member of: Spanish Association for the Study of Menopause, Spanish Society of Phytotherapeutic Gynecology, Spanish Society of Obstetrics and Gynecology, Board of the Menopause Section of the Catalan Society of Obstetrics and Gynecology

Dr. López López, Aranzazu

- ♦ Specialist in Biological Sciences Researcher
- ♦ Researcher at Fisabio Foundation
- ♦ Assistant Researcher at the University of the Balearic Islands
- ♦ PhD in Biological Sciences from the University of the Balearic Islands

Dr. Suárez Rodríguez, Marta

- ♦ Gynecologist specialized in Senology and Breast Pathology
- ♦ Researcher and University Professor
- ♦ PhD in Medicine and Surgery from the Complutense University of Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Master's Degree in Senology and Breast Pathology from the Autonomous University of Barcelona

Mr. Martínez Martínez, Alberto

- ◆ Clinical Nutrition in the Endocrinology and Nutrition Service of the Infanta Elena University Hospital
- ◆ Clinical Nutritionist of Endocrinology and Nutrition Department of the university Rey Juan Carlos Hospital
- ◆ Dietitian responsible for the menu of children with food allergy. Gastronomic
- ◆ Dietician- Clinical Nutritionist at the University Hospital Antonio
- ◆ Degree in Human Nutrition and Dietetics. Fluminense Federal University
- ◆ Graduate in Human Nutrition and Dietetics at the University of Valencia
- ◆ Master's Degree in Agri-environmental and Agri-food Sciences. Autonomous University of Madrid

Dr. Fernández Menéndez, Amanda

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

Dr. Núñez Sanz, Ana

- ◆ Dietician and nutritionist, expert in pregnancy, breastfeeding and infancy
- ◆ López-Nava Obesity Nutritionist.
- ◆ Nutritionist at Medicadiet
- ◆ *Freelance* Dietitian and nutritionist
- ◆ Dietitian and nutritionist at Menudiet SL
- ◆ Contributor on food and nutrition in Castilla La Mancha Television
- ◆ Promoter of talks and workshops on healthy eating for kindergartens, schools and companies
- ◆ Graduate in Human Nutrition and Dietetics at the Complutense University of Madrid
- ◆ Master's Degree in Nutrition and Health at the Open Official of Catalonia

Dr. González Toledo, Beatriz María

- ◆ Nephrology Nurse Unit of the Fundación Jiménez Díaz Hospital
- ◆ Nurse Director of Dialysis at the Íñigo Álvarez de Toledo Renal Foundation
- ◆ Master's Degree in Hemodialysis for Nurses at the Complutense University of Madrid
- ◆ Master's Degree in Nutrition and Health at the Open University of Catalonia
- ◆ Univerity Expert in Peritoneal Dialysis for Nursing at Cardenal Herrera University
- ◆ Graduate in Nursing from the Autonomous University of Madrid

Dr. Prieto Moreno, Ana

- ◆ Nutritionist in the Department of Endocrinology and Nutrition at University Hospital Fundación Jiménez
- ◆ Nutritionist at the General Hospital of Villalba
- ◆ Nutritionist at the Infanta Elena University Hospital
- ◆ Nutritionist in the Superior Sports Council
- ◆ Nutritionist at the WWF
- ◆ Nutritionist at Medicadiet
- ◆ Nutritionist at anitas Sociedad Anónima de Seguros
- ◆ Nutritionist at La Paz University Hospital
- ◆ Nutritionist at Fundación Mapfre
- ◆ Nutritionist at Copernal Publishing
- ◆ Nutritionist at Revista Diabetes
- ◆ Master's Degree in Obesity and its Comorbidities, Prevention Strategies, Diagnosis and Integral Treatment at the University of Alcalá
- ◆ Master's Degree in Physical Anthropology, Human Evolution and Biodiversity at the Complutense University of Madrid
- ◆ Degree in Human Nutrition and Dietetics at the Autonomous University of Madrid

Dr. Gutiérrez Pernia, Belén

- ◆ Obesity Nutritionist at Medicadiet
- ◆ López-Nava Obesity Nutritionist Madrid
- ◆ Dietitian and Nutritionist in Research Projects of Predimed Plus
- ◆ Grade in Human Nutrition and Dietetics from the Autonomous University of Madrid
- ◆ Master's Degree in Clinical Nutrition and Endocrinology at the Institute of Nutrition and Health Sciences

Ms. Yela Salguero, Clara

- ◆ Dietitian Coordination of Clinical Trials
- ◆ Dietician at the Jiménez Díaz Foundation Hospital
- ◆ Clinical Trials Coordinator at the Ramón y Cajal Hospital
- ◆ Dietitian at the Severo Ochoa Hospital, in Leganés
- ◆ Dietitian in the Integral Obesity Treatment Unit at the San José Hospital in Madrid
- ◆ Diploma in Human Nutrition and Dietetics at Alfonso X El Sabio University
- ◆ Degree in Food Science and Technology at the Complutense University of Madrid

Dr. Sanz Martínez, Enrique

- ◆ Clinical Nutritionist at the University Hospital General de Villalba and Rey Juan Carlos University Hospital
- ◆ Dietitian in the project PLUS researcher in the Health Research Institute of the Jiménez Díaz Foundation
- ◆ Researcher and collaborator in the NUTRICOVID study
- ◆ Researcher and collaborator in the cross-sectional prospective OBESTIGMA study
- ◆ Graduate in Human Nutrition and Dietetics at the Complutense University of Madrid
- ◆ Master's Degree in Clinical Nutrition at the Catholic University of San Antonio in Murcia
- ◆ Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis and Integral Treatment at the University Rey Juan Carlos

Dr. Hoyas Rodríguez, Irene

- ◆ Specialist in Endocrinology and Nutrition
- ◆ Specialist in Endocrinology and Nutrition at the Fundación Jiménez Díaz and Infanta Elena Hospitals
- ◆ Specialist in Endocrinology and Nutrition at the Beata María Ana Hospital
- ◆ Specialist in Endocrinology at the University Hospital 12 de Octubre
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Postgraduate course in Treatment of Diabetes Mellitus Type 2 at the Autonomous University of Barcelona

Ms. López Escudero, Leticia

- ◆ Nutritionist at Diet Clinic
- ◆ Dietician and clinical nutritionist at the Jiménez Díaz Foundation University Hospital
- ◆ Dietician and Clinical Nutritionist at the University Hospital Infanta Elena
- ◆ Professor in graduate studies Degree in Human Nutrition and Dietetics
- ◆ Graduate in Human Nutrition and Dietetics at the Complutense University of Madrid
- ◆ Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis and Integral Treatment at the University Rey Juan Carlos
- ◆ Master's Degree in Nutrition in Physical Activity and Sport, Open University of Catalunya (UOC)

Dr. Alcarria Águila, María del Mar

- ◆ Clinical Nutritionist at Medicadiet
- ◆ Clinical Obesity Nutritionist López-Nava
- ◆ Dietitian and Nutritionist in Predimed-Plus
- ◆ Grade in Human Nutrition and Dietetics from the Complutense University of Madrid
- ◆ Master's Degree in Sports Nutrition and Training from the Institute of Nutrition and Health Sciences (ICNS)

Dr. Miguélez González, María

- ◆ Attending Physician of Endocrinology and Nutrition at the University Hospital Jiménez Díaz Foundation. of Madrid
- ◆ Degree in Medicine from the University of Valladolid
- ◆ Teaching collaborator in seminars given to students at the Complutense University of Madrid
- ◆ Professor of the Master Expert in Obesity and Metabolic Complications, endorsed by SEEDO



Ms. Labeira Candel, Paula

- ◆ Clinical nutritionist in the Bariatric Endoscopy Unit at HM Hospitales
- ◆ Sports and clinical nutritionist at the Clinical Institute of Overweight and Obesity
- ◆ Nutritionist Sports and Clinical at Medicadiet, Slimming & Nutrition
- ◆ Sports Nutritionist at the CF TrivalValderas de Alcorcón
- ◆ Food and water quality analyst in the Andalusian Health Service
- ◆ Diploma in Human Nutrition and Dietetics at the Pablo Olavide University of Seville
- ◆ Bachelor 's Degree in Food Science and Technology
- ◆ Diploma in Human Nutrition and Dietetics
- ◆ Master's Degree in Sports Training and Nutrition at the European University of Madrid

“

Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

05

Structure and Content

This program will offer a wide range of contents that address the fundamental and advanced aspects of Nutrition applied to Clinical practice. Therefore, topics such as physiology and nutrient metabolism, nutritional status assessment, therapeutic diet planning and management of Chronic Diseases through specific nutritional interventions will be covered. In addition, aspects related to nutrition and health at different stages of life will be explored, as well as in various medical conditions, such as Diabetes, Obesity, Cardiovascular Diseases and Cancer.





“

You will explore advanced topics such as Nutrition in Chronic Diseases, enteral and parenteral Nutrition management, and the role of Nutrition in disease prevention and treatment”

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. Phytotherapy Applied to Nutritional Pathologies

Module 2. Current Trends in Nutrition

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

Module 3. Nutrigenetics I

- 3.1. Nutrigenetics Authorities and Organizations
 - 3.1.1. NUGO
 - 3.1.2. ISNN
 - 3.1.3. Evaluation Committees
- 3.2. GWAS I Studies
 - 3.2.1. Population Genetics - Design and Use
 - 3.2.2. Hardy-Weinberg Law
 - 3.2.3. Linkage Imbalance
- 3.3. GWAS II
 - 3.3.1. Allelic and Genotypic Frequencies
 - 3.3.2. Gene-Disease Association Studies
 - 3.3.3. Association Models (Dominant, Recessive, Co-dominant)
 - 3.3.4. Genetic Scores
- 3.4. The Discovery of Nutrition-Related SNPs
 - 3.4.1. Key Studies-Design
 - 3.4.2. Main Results
- 3.5. The Discovery of SNPs Associated with Nutrition-Related Diseases (Diet-Depended)
 - 3.5.1. Cardiovascular Diseases
 - 3.5.2. Diabetes Mellitus Type II
 - 3.5.3. Metabolic Syndrome
- 3.6. Main Obesity-Related GWAS
 - 3.6.1. Strengths and Weaknesses
 - 3.6.2. The FTO Example
- 3.7. Circadian Control of Intake
 - 3.7.1. Gut-Brain Axis
 - 3.7.2. Molecular and Neurological Basis of the Brain-Gut Connection
- 3.8. Chronobiology and Nutrition
 - 3.8.1. Central Clock
 - 3.8.2. Peripheral Clocks
 - 3.8.3. Circadian Rhythm Hormones
 - 3.8.4. Intake Control (Leptin and Ghrelin)

- 3.9. SNPs Related to Circadian Rhythms
 - 3.9.1. Regulatory Mechanisms of Satiety
 - 3.9.2. Hormones and Intake Control
 - 3.9.3. Possible Pathways Involved

Module 4. Nutrigenetics II Key Polymorphisms

- 4.1. Obesity-Related SNPs
 - 4.1.1. The Tale of the Obese Monkey
 - 4.1.2. Appetite Hormones
 - 4.1.3. Thermogenesis
- 4.2. Vitamin-Related SNPs
 - 4.2.1. Vitamin D
 - 4.2.2. B Complex Vitamins
 - 4.2.3. Vitamin E
- 4.3. Exercise-Related SNPs
 - 4.3.1. Strength vs. Competition
 - 4.3.2. Sports Performance
 - 4.3.3. Injury Prevention/Recovery
- 4.4. Oxidative Stress/Detoxification-related SNPs
 - 4.4.1. Genes Encoding Enzymes
 - 4.4.2. Anti-Inflammatory Processes
 - 4.4.3. Phase I+II of Detoxification
- 4.5. SNP related to Addictions
 - 4.5.1. Caffeine
 - 4.5.2. Alcohol
 - 4.5.3. Salt
- 4.7. SNP Related to Flavor
 - 4.7.1. Sweet Taste
 - 4.7.2. Salty Taste
 - 4.7.3. Bitter Taste
 - 4.7.4. Acid Taste

- 4.8. SNP vs. Allergies vs. Intolerances
 - 4.8.1. Lactose
 - 4.8.2. Gluten
 - 4.8.3. Fructose
- 4.9. PESA Study

Module 5. Nutrigenetics III

- 5.1. SNPs Predisposing to Complex Nutrition-Related Diseases -- Genetic Risk Scores (GRS)
- 5.2. Type II Diabetes
- 5.3. Hypertension
- 5.4. Arteriosclerosis
- 5.5. Hyperlipidemia
- 5.6. Cancer
- 5.7. The Exposome Concept
- 5.8. Metabolic Flexibility Concept
- 5.9. Current Studies-Challenges for the Future

Module 6. Nutrigenomics

- 6.1. Differences and Similarities with Nutrigenetics
- 6.2. Bioactive Components of Diet on Gene Expression
- 6.3. The Effect of Micro and Macronutrients on Gene Expression
- 6.4. The Effect of Dietary Patterns on Gene Expression
 - 6.4.1. The Mediterranean Diet Example
- 6.5. Main Studies in Gene Expression
- 6.6. Genes Related to Inflammation
- 6.7. Genes Related to Insulin Sensitivity
- 6.8. Genes related to Lipid Metabolism and Adipose Tissue Differentiation
- 6.9. Genes Related to Arteriosclerosis
- 6.10. Genes Related to the Myoskeletal System

Module 7. Metabolomics-Proteomics

- 7.1. Proteomics
 - 7.1.1. Principles of Proteomics
 - 7.1.2. The Flow of Proteomics Analysis
- 7.2. Metabolomics
 - 7.2.1. Principles of Metabolomics
 - 7.2.2. Targeted Metabolomics
 - 7.2.3. Non-Targeted Metabolomics
- 7.3. The Microbiome/Microbiota
 - 7.3.1. Microbiome Data
 - 7.3.2. Human Microbiota Composition
 - 7.3.3. Enterotypes and Diet
- 7.4. Main Metabolomic Profiles
 - 7.4.1. Application to Disease Diagnosis
 - 7.4.2. Microbiota and Metabolic Syndrome
 - 7.4.3. Microbiota and Cardiovascular Diseases Effect of the Oral and Intestinal Microbiota
- 7.5. Microbiota and Neurodegenerative Diseases
 - 7.5.1. Alzheimer's Disease
 - 7.5.2. Parkinson's Disease
 - 7.5.3. ALS
- 7.6. Microbiota and Neuropsychiatric Diseases
 - 7.6.1. Schizophrenia
 - 7.6.2. Anxiety, Depression, Autism
- 7.7. Microbiota and Obesity
 - 7.7.1. Enterotypes
 - 7.7.2. Current Studies and State of Knowledge

Module 8. Epigenetics

- 8.1. History of Epigenetics. The Way I Feed Myself, a Legacy for my Grandchildren
- 8.2. Epigenetics vs. Epigenomics
- 8.3. Methylation
 - 8.3.1. Examples of Folate and Choline, Genistein
 - 8.3.2. Examples of Zinc, Selenium, Vitamin A, Protein Restriction
- 8.4. Histone Modification
 - 8.4.1. Examples of Butyrate, Isothiocyanates, Folate and Choline
 - 8.4.2. Examples of Retinoic Acid, Protein Restriction
- 8.5. MicroRNA
 - 8.5.1. Biogenesis of MicroRNAs in Humans
 - 8.5.2. Mechanisms of Action-Regulating Processes
- 8.6. Nutrimiromics
 - 8.6.1. Diet-Modulated MicroRNAs
 - 8.6.2. MicroRNAs involved in Metabolism
- 8.7. Role of MicroRNAs in Diseases
 - 8.7.1. MicroRNA in Tumorigenesis
 - 8.7.2. MicroRNAs in Obesity, Diabetes and Cardiovascular Diseases
- 8.8. Gene Variants that Generate or Destroy Binding Sites for MicroRNAs
 - 8.8.1. Main Studies
 - 8.8.2. Results in Human Diseases
- 8.9. MicroRNA Detection and Purification Methods
 - 8.9.1. Circulating MicroRNAs
 - 8.9.2. Basic Methods Used



Module 9. Laboratory Techniques for Nutritional Genomics

- 9.1. Molecular Biology Laboratory
 - 9.1.1. Basic Instructions
 - 9.1.2. Basic Material
 - 9.1.3. Accreditations Required in the U.S.
- 9.2. DNA Extraction
 - 9.2.1. From Saliva
 - 9.2.2. From Blood
 - 9.2.3. From Other Fabrics
- 9.3. Real-Time PCR
 - 9.3.1. Introduction - History of the Method
 - 9.3.2. Basic Protocols Used
 - 9.3.3. Most Used Equipment
- 9.4. Sequencing
 - 9.4.1. Introduction - History of the Method
 - 9.4.2. Basic Protocols Used
 - 9.4.3. Most Used Equipment
- 9.5. High-throughput
 - 9.5.1. Introduction - History of the Method
 - 9.5.2. Examples of Human Studies
- 9.6. Gene Expression - Genomics - Transcriptomics
 - 9.6.1. Introduction - History of the Method
 - 9.6.2. Microarrays
 - 9.6.3. Microfluidic Cards
 - 9.6.4. Examples of Human Studies
- 9.7. Omics Technologies and their Biomarkers
 - 9.7.1. Epigenomics
 - 9.7.2. Proteomics
 - 9.7.3. Metabolomics
 - 9.7.4. Metagenomics
- 9.8. Bioinformatics Analysis
 - 9.8.1. Pre- and Post-Informatics Bioinformatics Programs and Tools
 - 9.8.2. GO Terms, Clustering of DNA Microarray Data
 - 9.8.3. Functional Enrichment, GEPAS, Babelomics

Module 10. The Relationship between Intolerances/Allergies and the Microbiota

- 10.1. Microbiota Changes in Patients on Food Exclusion Diets
 - 10.1.1. Eosinophilic Esophagitis (EoE)
- 10.2. Changes in the Microbiota in Patients with Food Exclusion Diets: Intolerance to Dairy Products (Lactose, Milk Proteins: Caseins, Albumins, Others)
 - 10.2.1. Lactose Intolerance
 - 10.2.2. Intolerant to Milk Proteins: Caseins, Albumins, etc.
 - 10.2.3. People Allergic to Milk
- 10.3. Alteration and Recovery of the Intestinal Microbiota in Patients with Gluten Intolerance and Celiac Disease
 - 10.3.1. Alteration of the Intestinal Microbiota in Patients with Gluten Intolerance
 - 10.3.2. Alteration of the Intestinal Microbiota in Celiac Patients
 - 10.3.3. Role of Probiotics and Prebiotics in the Recovery of the Microbiota in Gluten Intolerant and Celiacs
- 10.4. Microbiota and Biogenic Amines
- 10.5. Current Lines of Research

Module 11. Nutrition in Overweight, Obesity and their Comorbidities

- 11.1. Pathophysiology of Obesity
 - 11.1.1. Precision Diagnosis
 - 11.1.2. Analysis of Underlying Causes
- 11.2. Phenotypic Diagnosis
 - 11.2.1. Body Composition and Calorimetry and Impact on Personalized Treatment
- 11.3. Treatment Target and Hypocaloric Diet Models
- 11.4. Prescription of Physical Exercise in Overweight and Obesity
- 11.5. Psychology Associated with Slimming Nutrition: Psychonutrition
- 11.6. Comorbidities Associated with Obesity
 - 11.6.1. Nutritional Management in Metabolic Syndrome
 - 11.6.2. Insulin Resistance
 - 11.6.3. Type 2 Diabetes and Diabetes
- 11.7. Cardiovascular Risk and Nutritional Adaptations in Hypertension, Dyslipidemias and Atherosclerosis
- 11.8. Digestive Pathologies Associated with Obesity and Dysbiosis

- 11.9. Pharmacological Treatment in Obesity and Drug-Nutrient Interactions and Adaptation of the Nutritional Plan
- 11.10. Bariatric and Endoscopic Surgery
 - 11.10.1. Nutritional Adaptations

Module 12. Nutrition in Digestive Tract Pathologies

- 12.1. Nutrition in Oral Disorders
 - 12.1.1. Taste
 - 12.1.2. Salivation
 - 12.1.3. Mucositis
- 12.2. Nutrition in Esophagogastric Disorders
 - 12.2.1. Gastroesophageal Reflux
 - 12.2.2. Gastric Ulcers
 - 12.2.3. Dysphagia
- 12.3. Nutrition in Post-Surgical Syndromes
 - 12.3.1. Gastric Surgery
 - 12.3.2. Small Intestine
- 12.4. Nutrition in Bowel Function Disorders
 - 12.4.1. Constipation
 - 12.4.2. Diarrhea
- 12.5. Nutrition in Malabsorption Syndromes
- 12.6. Nutrition in Colonic Pathology
 - 12.6.1. Irritable Bowel
 - 12.6.2. Diverticulosis
- 12.7. Nutrition in Inflammatory Bowel Disease (IBD)
- 12.8. Most Frequent Food Allergies and Intolerances with Gastrointestinal Effects
- 12.9. Nutrition in Liver Diseases
 - 12.9.1. Portal Hypertension
 - 12.9.2. Hepatic Encephalopathy
 - 12.9.3. Liver Transplant
- 12.10. Nutrition in Biliary Diseases. Biliary Lithiasis
- 12.11. Nutrition in Pancreatic Diseases
 - 12.11.1. Acute Pancreatitis
 - 12.11.2. Chronic Pancreatitis

Module 13. Nutrition in Endocrine-Metabolic Diseases

- 13.1. Dyslipidemia and Arteriosclerosis
- 13.2. Diabetes Mellitus
- 13.3. Hypertension and Cardiovascular Disease
- 13.4. Obesity
 - 13.4.1. Etiology, Nutrigenetics and Nutrigenomics
 - 13.4.2. Pathophysiology of Obesity
 - 13.4.3. Diagnosis of the Disease and its Comorbidities
 - 13.4.4. Multidisciplinary Team in Obesity Treatment
 - 13.4.5. Dietary Treatment. Therapeutic Possibilities
 - 13.4.6. Pharmacological Treatment. New Drugs
 - 13.4.7. Psychological Treatment
 - 13.4.7.1. Intervention Models
 - 13.4.7.2. Treatment of Associated Eating Disorders
 - 13.4.8. Surgical Treatments
 - 13.4.8.1. Indications
 - 13.4.8.2. Techniques
 - 13.4.8.3. Complications
 - 13.4.8.4. Dietary Management
 - 13.4.8.5. Metabolic Surgery
 - 13.4.9. Endoscopic Treatments
 - 13.4.9.1. Indications
 - 13.4.9.2. Techniques
 - 13.4.9.3. Complications
 - 13.4.9.4. Patient Dietary Management
 - 13.4.10. Physical Activity in Obesity
 - 13.4.10.1. Assessment of the Patient's Functional Capacity and Activity
 - 13.4.10.2. Activity-based Prevention Strategies
 - 13.4.10.3. Intervention in the Treatment of the Disease and Associated Pathologies
 - 13.4.11. Update on Diet and Obesity Studies
 - 13.4.12. International Intervention Strategies for Obesity Control and Prevention

Module 14. Nutrition in Nervous System Pathologies

- 14.1. Nutrition in the Prevention of Cognitive Impairment, Dementia and Alzheimer's Disease
- 14.2. Nutrition and Psychoaffective Pathologies
 - 14.2.1. Depression
 - 14.2.2. Bipolar Disorder
- 14.3. Pathologies with Altered Eating Behavior
 - 14.3.1. Schizophrenia
 - 14.3.2. Borderline Personality Disorder
- 14.4. Eating Disorders
 - 14.4.1. Anorexia
 - 14.4.2. Bulimia
 - 14.4.3. BED
- 14.5. Nutrition in Degenerative Pathologies
 - 14.5.1. Multiple Sclerosis
 - 14.5.2. Amyotrophic Lateral Sclerosis
 - 14.5.3. Muscular Dystrophies
- 14.6. Nutrition in Pathologies with Uncontrolled Movement
 - 14.6.1. Parkinson's Disease
 - 14.6.2. Huntington's Disease
- 14.7. Nutrition in Epilepsy
- 14.8. Nutrition in Neuralgias
 - 14.8.1. Chronic Pain
- 14.9. Nutrition in Severe Neurological Injuries
- 14.10. Toxics, Bioactive Compounds, Intestinal Microbiota and their Relationship to Nervous System Diseases

Module 15. Nutrition in Kidney Diseases

- 15.1. Glomerular Disorders and Tubulopathies
- 15.2. Predialysis Chronic Renal Failure
- 15.3. Chronic Renal Insufficiency and Dialysis
- 15.4. Gout and Hyperuricemia

Module 16. Nutrition in Special Situations

- 16.1. Nutrition in Metabolic Stress Situations
 - 16.1.1. Sepsis
 - 16.1.2. Polytrauma
 - 16.1.3. Burns
 - 16.1.4. Transplant Recipient
- 16.2. Oncology Patient Nutrition
 - 16.2.1. Surgical Treatment
 - 16.2.2. Chemotherapy Treatment
 - 16.2.3. Radiotherapy Treatment
 - 16.2.4. Bone Marrow Transplant
- 16.3. Immune Diseases
 - 16.3.1. Acquired Immunodeficiency Syndrome

Module 17. Clinical Nutrition and Hospital Dietetics

- 17.1. Management of Hospital Nutrition Units
 - 17.1.1. Nutrition in the Hospital Setting
 - 17.1.2. Food Safety in Hospitals
 - 17.1.3. Hospital Kitchen Organization
 - 17.1.4. Planning and Managing Hospital Diets. Dietary Code
- 17.2. Hospital Basal Diets
 - 17.2.1. Basal Diet in Adults
 - 17.2.2. Pediatric Basal Diet
 - 17.2.3. Ovo-Lacto-Vegetarian and Vegan Diet
 - 17.2.4. Diet Adapted to Cultural
- 17.3. Therapeutic Hospital Diets
 - 17.3.1. Unification of Diets and Personalized Menus
- 17.4. Bi-Directional Drug-Nutrient Interaction

Module 18. Artificial Nutrition in Adults

- 18.1. Enteral Nutrition
- 18.2. Parenteral Nutrition
- 18.3. Artificial Nutrition at Home
- 18.4. Adapted Oral Nutrition

Module 19. Physiology of Infant Nutrition

- 19.1. Influence of Nutrition on Growth and Development
- 19.2. Nutritional Requirements in the Different Periods of Childhood
- 19.3. Nutritional Assessment in Children
- 19.4. Physical Activity Evaluation and Recommendations
- 19.5. Nutrition During Pregnancy and its Impact on the New-born
- 19.6. Current Trends in the Premature New-Born Nutrition
- 19.7. Nutrition in Lactating Women and its Impact on the Infant
- 19.8. Nutrition of New-Borns with Intrauterine Growth Delay
- 19.9. Breastfeeding
 - 19.9.1. Human Milk as a Functional Food
 - 19.9.2. Process of Milk Synthesis and Secretion
 - 19.9.3. Reasons for it to be Encouraged
- 19.10. Human Milk Banks
 - 19.10.1. Milk Bank Operation and Indications
- 19.11. Concept and Characteristics of the Formulas Used in Infant Feeding
- 19.12. The Move to a Diversified Diet. Complementary Feeding During the First Year of Life
- 19.13. Feeding 1–3-Year-Old Children
- 19.14. Feeding During the Stable Growth Phase. Schoolchild Nutrition
- 19.15. Adolescent Nutrition. Nutritional Risk Factors
- 19.16. Child and Adolescent Athlete Nutrition
- 19.17. Other Dietary Patterns for Children and Adolescents. Cultural, Social, and Religious Influences on Childhood Nutrition
- 19.18. Prevention of Childhood Nutritional Diseases. Objectives and Guidelines

Module 20. Artificial Nutrition in Pediatrics

- 20.1. Concept of Nutritional Therapy in Pediatrics
 - 20.1.1. Evaluation of Patients in Need of Nutritional Support
 - 20.1.2. Indications
- 20.2. General Information about Enteral and Parenteral Nutrition
 - 20.2.1. Enteral Pediatric Nutrition
 - 20.2.2. Parenteral Pediatric Nutrition
- 20.3. Dietary Products Used for Sick Children or Children with Special Needs
- 20.4. Implementing and Monitoring Patients with Nutritional Support
 - 20.4.1. Critical Patients
 - 20.4.2. Patients with Neurological Pathologies
- 20.5. Artificial Nutrition at Home
- 20.6. Nutritional Supplements to Support the Conventional Diet
- 20.7. Probiotics and Prebiotics in Infant Feeding

Module 21. Infant Malnutrition.

- 21.1. Childhood Malnutrition and Undernutrition
 - 21.1.1. Psychosocial Aspects
 - 21.1.2. Pediatric Assessment
 - 21.1.3. Treatment and Monitoring
- 21.2. Nutritional Anemias
 - 21.2.1. Other Nutritional Anemias in Childhood
- 21.3. Vitamin and Trace Element Deficiencies
 - 21.3.1. Vitamins
 - 21.3.2. Trace Elements
 - 21.3.3. Detection and Treatment
- 21.4. Fats in Infant Diets
 - 21.4.1. Essential Fatty Acids
- 21.5. Childhood Obesity
 - 21.5.1. Prevention
 - 21.5.2. Impact of Childhood Obesity
 - 21.5.3. Nutritional Treatment

Module 22. Childhood Nutrition and Pathologies

- 22.1. Nutrition of Children with Oral Pathologies
 - 22.1.1. Major Childhood oral pathologies
 - 22.1.2. Repercussions of These Alterations on the Child's Nutrition
 - 22.1.3. Mechanisms to Avoid Related Malnutrition
- 22.2. Nutrition of Infants and Children with Gastroesophageal Reflux
 - 22.2.1. Repercussions of These Alterations on the Child's Nutrition
 - 22.2.2. Mechanisms to Avoid Related Malnutrition
- 22.3. Nutrition in Acute Diarrhea Situation
 - 22.3.1. Repercussions of These Alterations on the Child's Nutrition
 - 22.3.2. Mechanisms to Avoid Related Malnutrition
- 22.4. Nutrition in Children with Celiac Disease
 - 22.4.1. Repercussions of These Alterations on the Child's Nutrition
 - 22.4.2. Mechanisms to Avoid Related Malnutrition
- 22.5. Nutrition of the Child with Inflammatory Bowel Disease
 - 22.5.1. Repercussions of These Alterations on the Child's Nutrition
 - 22.5.2. Mechanisms to Avoid Related Malnutrition
- 22.6. Nutrition in the Child with Malabsorptive/Digestive Syndrome
 - 22.6.1. Repercussions of These Alterations on the Child's Nutrition
 - 22.6.2. Mechanisms to Avoid Related Malnutrition
- 22.7. Nutrition in Children with Constipation
 - 22.7.1. Nutritional Mechanisms to Prevent Constipation
 - 22.7.2. Nutritional Approaches for Treating Constipation
- 22.8. Nutrition in Children with Liver Disease
 - 22.8.1. Repercussions of These Alterations on the Child's Nutrition
 - 22.8.2. Mechanisms to Avoid Related Malnutrition
 - 22.8.3. Special Diets

Module 23. Childhood Nutrition and Pathologies

- 23.1. Feeding Difficulties and Disorders in Children
 - 23.1.1. Physiological Aspects
 - 23.1.2. Psychological Aspects
- 23.2. Eating Disorders
 - 23.2.1. Anorexia
 - 23.2.2. Bulimia
 - 23.2.3. Others
- 23.3. Inborn Errors of Metabolism
 - 23.3.1. Principles for Dietary Treatment
- 23.4. Nutrition in Dyslipidemia
 - 23.4.1. Nutritional Mechanisms to Prevent Dyslipidemias
 - 23.4.2. Nutritional Mechanisms to Treat Dyslipidemias
- 23.5. Nutrition in the Diabetic Child
 - 23.5.1. Repercussions of Diabetes in the Nutrition of the Child
 - 23.5.2. Mechanisms to Avoid Related Malnutrition
- 23.6. Nutrition in Autistic Children
 - 23.6.1. Repercussions of These Alterations on the Child's Nutrition
 - 23.6.2. Mechanisms to Avoid Related Malnutrition
- 23.7. Nutrition in Children with Cancer
 - 23.7.1. Repercussions of Disease and Treatments in the Child's Nutrition
 - 23.7.2. Mechanisms to Avoid Related Malnutrition
- 23.8. Nutrition in Children with Chronic Pulmonary Pathology
 - 23.8.1. Repercussions of These Alterations on the Child's Nutrition
 - 23.8.2. Mechanisms to Avoid Related Malnutrition
- 23.9. Nutrition in Children with Nephropathy
 - 23.9.1. Repercussions of These Alterations on the Child's Nutrition
 - 23.9.2. Mechanisms to Avoid Related Malnutrition
 - 23.9.3. Special Diets
- 23.10. Nutrition of the Child with Food Allergy and/or Intolerance
 - 23.10.1. Special Diets
- 23.11. Childhood Nutrition and Bone Pathology
 - 23.11.1. Mechanisms for Good Bone Health in Childhood

Module 24. Sports Nutrition

- 24.1. Physiology of Exercise
- 24.2. Physiological Adaptation to Different Types of Exercise
- 24.3. Metabolic Adaptation to Exercise. Regulation and Control
- 24.4. Assessing Athletes' Energy Needs and Nutritional Status
- 24.5. Assessing Athletes' Physical Ability
- 24.6. Nutrition in the Different Phases of Sports Practice
 - 24.6.1. Pre-Competition
 - 24.6.2. During
 - 24.6.3. Post-Competition
- 24.7. Hydration
 - 24.7.1. Regulation and Needs
 - 24.7.2. Types of Beverages
- 24.8. Dietary Planning Adapted to Different Sports
- 24.9. Ergogenic Aids
- 24.10. Nutrition in Sports Injury Recovery
- 24.11. Psychological Disorders Related to Practicing Sport
 - 24.11.1. Eating Disorders: Vigorexia, Orthorexia, Anorexia
 - 24.11.2. Fatigue Caused by Overtraining
 - 24.11.3. The Female Athlete Triad
- 24.12. The Role of the Coach in Sports Performance

Module 25. Assessment of Nutritional Status and Calculation of Personalized Nutritional Plans, Recommendations and Monitoring

- 25.1. Medical History and Background
 - 25.1.1. Individual Variables Affecting Nutritional Plan Response.
- 25.2. Anthropometry and Body Composition
- 25.3. Assessment of Eating Habits
 - 25.3.1 Nutritional Assessment of Food Consumption
- 25.4. Interdisciplinary Team and Therapeutic Circuits
- 25.5. Calculation of Energy Intake
- 25.6. Calculation of Recommended Macro- and Micronutrient Intakes

- 25.7. Quantity and Frequency of Food Consumption Recommendations
 - 25.7.1. Dietary Patterns
 - 25.7.2. Planning
 - 25.7.3. Distribution of Daily Feedings
- 25.8. Diet Planning Models
 - 25.8.1. Weekly Menus
 - 25.8.2. Daily Intake
 - 25.8.3. Methodology by Food Exchanges
- 25.9. Hospital Nutrition
 - 25.9.1. Dietary Models
 - 25.9.2. Decision Algorithms
- 25.10. Educational
 - 25.10.1. Psychological Aspects
 - 25.10.2. Maintenance of Feeding Habits
 - 25.10.3. Discharge Recommendations

Module 26. Nutritional Consultation

- 26.1. How to Carry Out a Nutritional Consultation
 - 26.1.1. Analysis of the Market and Competition
 - 26.1.2. Clients
 - 26.1.3. Marketing. Social Networks
- 26.2. Psychology and Nutrition
 - 26.2.1. Psychosocial Factors Affecting Eating Behavior
 - 26.2.2. Interview Techniques
 - 26.2.3. Dietary Advice
 - 26.2.4. Stress Control
 - 26.2.5. Child and Adult Nutrition Education

Module 27. Probiotics, Prebiotics, Microbiota, and Health

- 27.1. Probiotics
- 27.2. Prebiotics
- 27.3. Clinical Applications of Probiotics and Prebiotics in Gastroenterology
- 27.4. Clinical Applications of Endocrinology and Cardiovascular Disorders
- 27.5. Clinical Applications of Probiotics and Prebiotics in Urology
- 27.6. Clinical Applications of Probiotics and Prebiotics in Gynecology
- 27.7. Clinical Applications of Probiotics and Prebiotics in Immunology
- 27.8. Clinical Applications of Probiotics and Prebiotics in Nutritional Diseases
- 27.9. Clinical Applications of Probiotics and Prebiotics in Neurological Diseases
- 27.10. Clinical Applications of Probiotics and Prebiotics in Critically Ill Patients
- 27.11. Dairy Products as a Natural Source of Probiotics and Prebiotics

Module 28. Nutrition for Health, Equity and Sustainability

- 28.1. Sustainable Nutrition, Food Variables Influencing the Ecological Footprint.
 - 28.1.1. Carbon Footprint
 - 28.1.2. Water Footprint
- 28.2. Food Waste as an Individual Problem and as a Problem Associated with the Food Industry
- 28.3. Biodiversity Loss at Different Levels and its Impact on Human Health: Microbiota
- 28.4. Toxics and Xenobiotics in Food and their Effects on Health
- 28.5. Current Food Legislation
 - 28.5.1. Labeling, Additives and Regulatory Proposals in Marketing and Advertising
- 28.6. Nutrition and Endocrine Disruptors
- 28.7. The Global Obesity and Malnutrition Epidemic, Associated with Inequity: "A Planet of Fat and Hungry People".
- 28.8. Feeding in Childhood and Youth and Habits Acquisition in Adulthood
 - 28.8.1. Ultraprocessed Foods and Beverages other than Water: A Population Problem
- 28.9. Food Industry, Marketing, Advertising, Social Networks and their Influence on Food Choice
- 28.10. Healthy, Sustainable and Non-Toxic Food Recommendations: Policy

06

Methodology

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

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



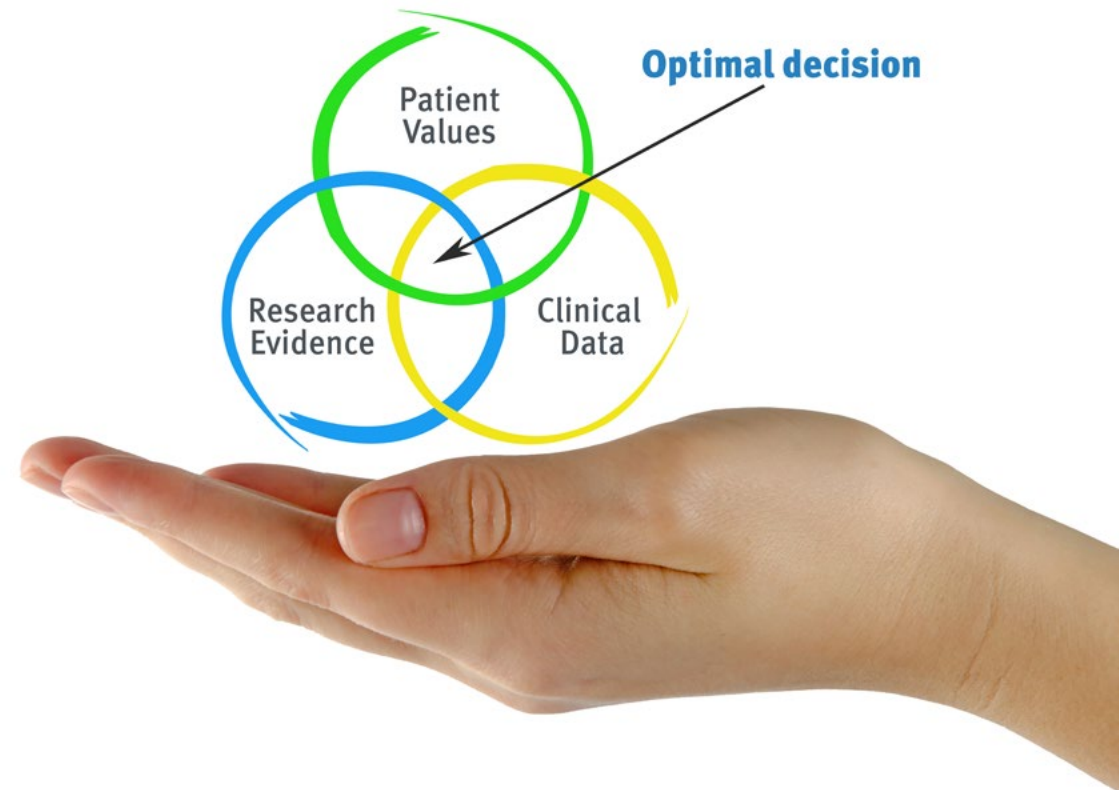
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH Nursing School we use the Case Method

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

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



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

“

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.

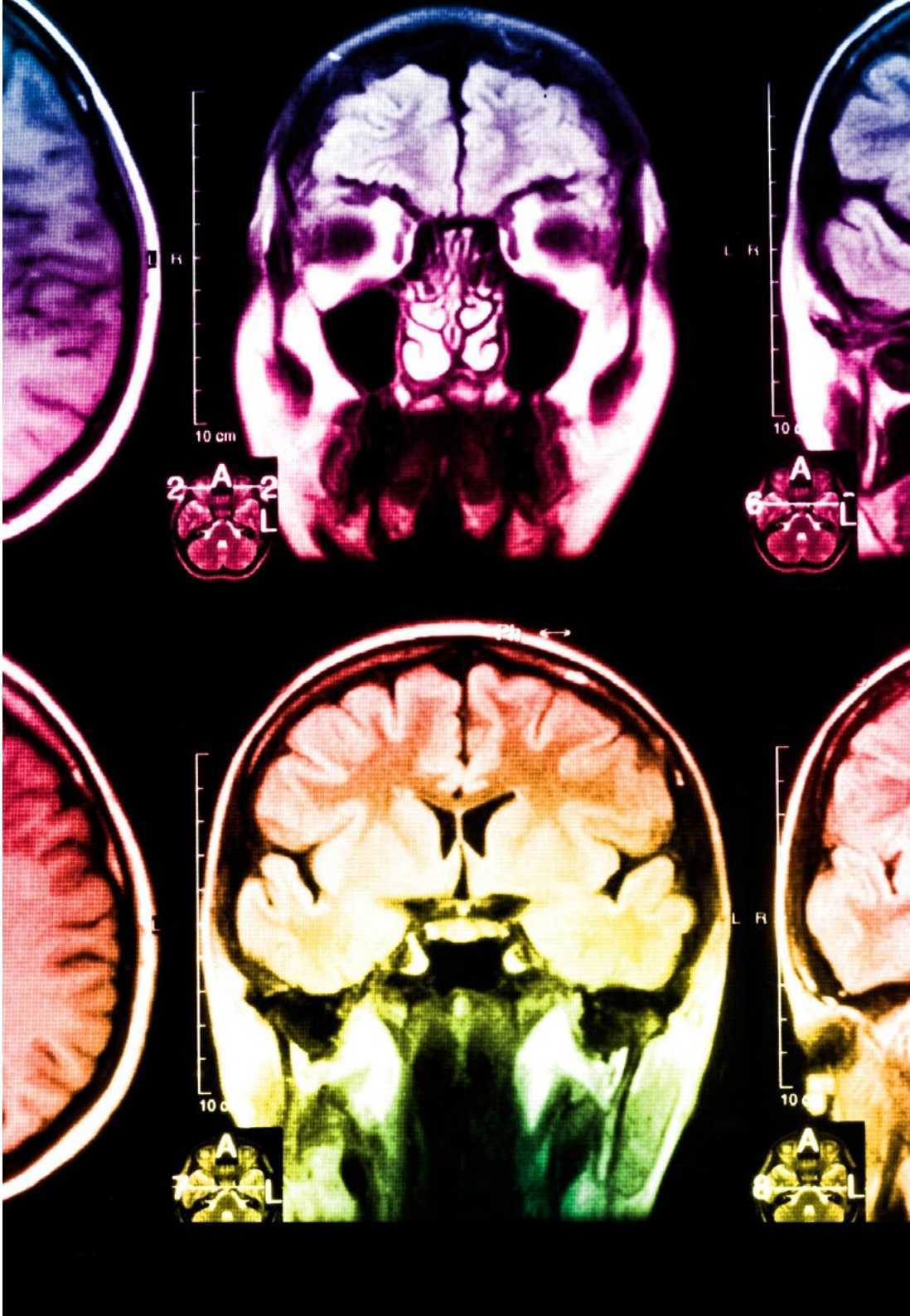
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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.

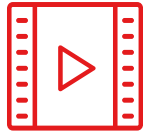
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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 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.



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

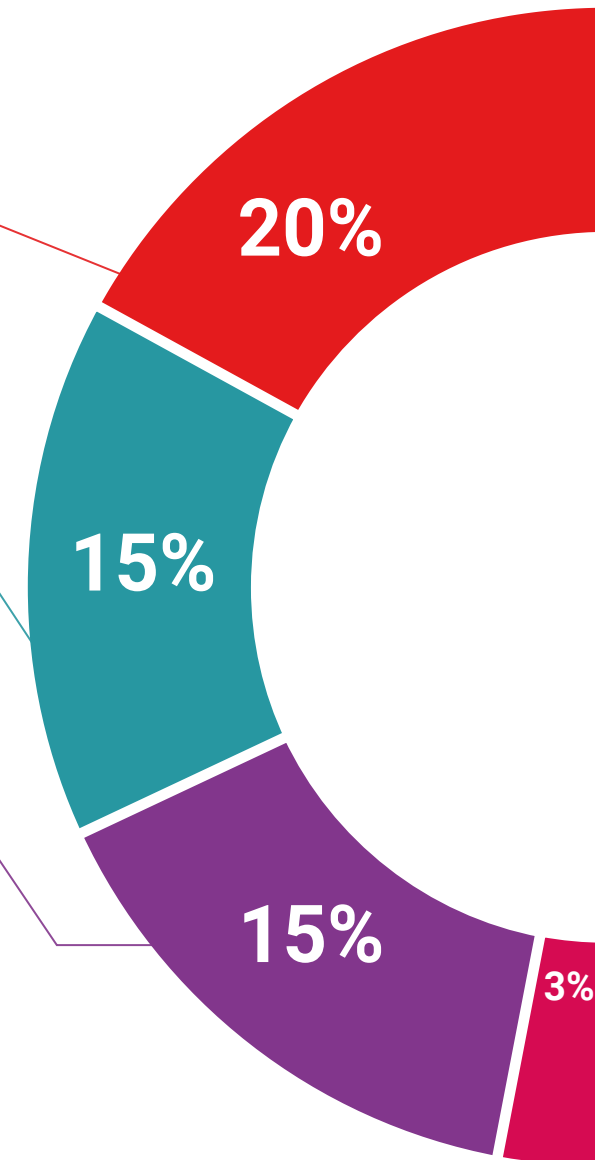
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

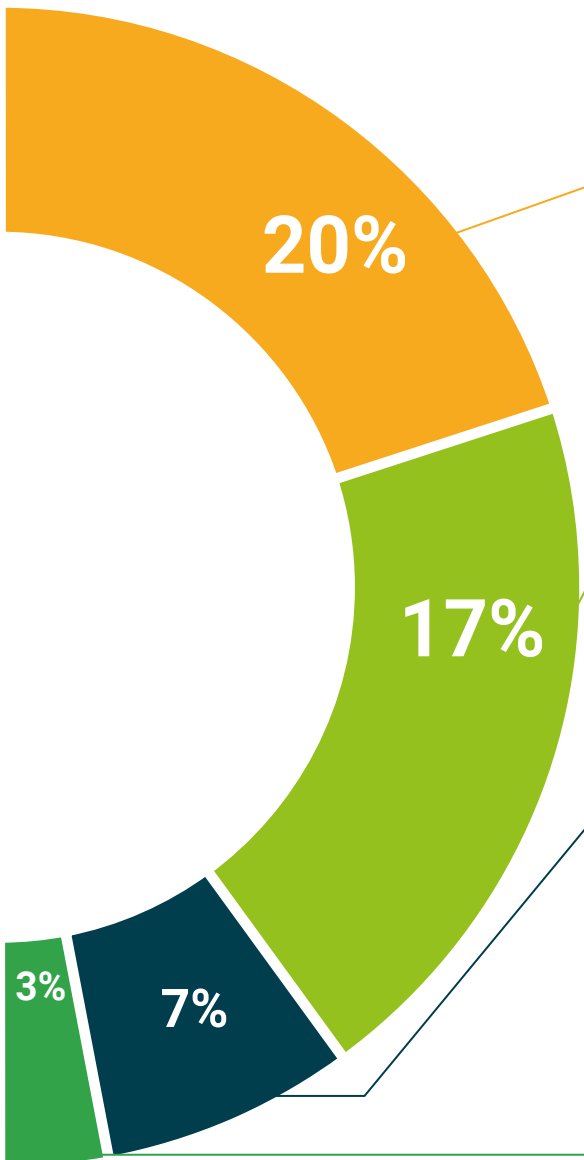
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of 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 Advanced Master's Degree in Clinical Nutrition for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced 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”

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

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

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

Title: **Advanced Master's Degree in Clinical Nutrition for Nursing**

Modality: **Online**

Duration: **2 years**

Accreditation: **120 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.



Advanced Master's Degree Clinical Nutrition for Nursing

- » Modality: **online**
- » Duration: **2 years**
- » Certificate: **TECH Global University**
- » Accreditation: **120 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Advanced Master's Degree Clinical Nutrition for Nursing

