

# Postgraduate Diploma

## Nutrition and Disease





## Postgraduate Diploma Nutrition and Disease

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitude.com/us/nutrition/postgraduate-diploma/postgraduate-diploma-nutrition-disease](http://www.techtitude.com/us/nutrition/postgraduate-diploma/postgraduate-diploma-nutrition-disease)

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# 01 Introduction

Nutrition is one of the most fundamental aspects of a patient's state of health. Therefore, it is essential to have a nutritional plan with high nutritional values that, in addition to maintaining the body, provides defenses for its proper functioning. Thus TECH has created the following qualification in order to provide the nutritionist with the most up-to-date and rigorous information in the field. All this in a convenient 100% online format, full of audiovisual materials, complementary readings and practical exercises with the *Relearning* methodology. In addition, no face-to-face sessions will be required, and only a device with an Internet connection will be needed to carry out the program.



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*If you want to improve your daily practice, don't hesitate to broaden your knowledge with this intensive training”*



A healthy and balanced diet helps to prevent diseases as well as to combat or improve the health of people who suffer from some kind of disease. Specialization in Nutrition is the essential response of the Professional to the care and preventive needs of the population in matters of food and health.

This prestigious program deepens your knowledge in the latest techniques in nutrition with the help of professionals with extensive experience in the sector. The nutritionist will be updated with work strategies based on the practical knowledge of the new trends in nutrition and its application to adult pathologies, where it plays a key role in their therapy.

The syllabus covers the main current topics in Nutrition and Disease in such a way that whoever masters them will be prepared to work in this field. Therefore, it is not just another diploma in your backpack, but a real learning tool to approach the topics of the specialty in a modern, objective way and with the ability to make a judgment based on today's most cutting-edge literature.

This **Postgraduate Diploma in Nutrition and Disease** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice.
- ♦ It contains exercises where the self-assessment process can be carried out to improve learning
- ♦ Algorithm-based interactive learning system for decision-making for patients with feeding problems.
- ♦ All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Improve your knowledge through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the speciality to be able to perform quality nutritional practice"*

“*Improve your skills and skills  
in the approach to Nutrition  
and Disease through this  
Postgraduate Diploma”*

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

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*This Postgraduate Diploma contains  
the most complete and up-to-date  
scientific program on the market.*

*This refresher program will provide you  
with a sense of confidence in your daily  
work, which will help you grow both  
personally and professionally.*



# 02 Objectives

The main objective of the program is the development of both theoretical and practical learning, so that the professional can master, in a practical and rigorous way, the study of Nutrition and Disease.







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*The role of nutritionists is fundamental in order to assess those patients who want to improve their health”*



## General Objectives

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



*Make the most of the opportunity and take the step to get up-to-date on the latest developments in Nutrition and Disease"*





## Specific Objectives

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### Module 1. Assessment of Nutritional Status and Diet. Practical Application

- Analyze the different methods for assessing nutritional status
- Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological, and pharmacological data in the patient's nutritional assessment and dietary-nutritional treatment
- Predict patients' nutritional risk
- Manage the different types of nutritional surveys to assess food intake
- Early detection and evaluation of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- Review basic aspects of food microbiology, parasitology, and toxicology related to food safety

### Module 2. Nutrition in Digestive System Pathologies

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

### Module 3. Nutrition in Endocrine-Metabolic Diseases

- Explore the etiology, nutrigenetics and nutrigenomics of obesity
- In-depth study of advances in diabetes mellitus and hypertension
- Know the most effective endoscopic and surgical treatments for endocrine-metabolic diseases
- Update knowledge on dieting and obesity

### Module 4. Nutrition in Kidney Diseases

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

### Module 5. Nutrition in Neurological Diseases.

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

### Module 6. 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 7. Nutrition in Deficiency Diseases

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

### Module 8. Artificial Nutrition in Adults

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

03

# Course Management

The program's teaching staff includes leading experts in research and health, who bring the experience of their work to this training. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.



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*Leading professionals in the field have  
come together to teach you the latest  
advances in Nutrition and Disease”*



## International Guest Director

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

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

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

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



## Dr. Ray, Sumantra

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- ♦ Executive Director and Founder, NNEdPro Global Nutrition and Health Centre, Cambridge, UK
- ♦ Director of Research in Food Security, Health and Society in the Faculty of Humanities and Social Sciences, University of Cambridge
- ♦ Co-Founder and President of the BMJ Scientific Journal Nutrition, Prevention and Health
- ♦ Presidential Advisor at the School of Advanced Studies on Food and Nutrition, University of Parma
- ♦ Vice President of the Conference of Medical Academic Representatives of the BMA
- ♦ Consultant on special assignment for the Nutrition Directorate of the World Health Organization Headquarters in Geneva
- ♦ Honorary International Dean of the Cordia Colleges in India
- ♦ Senior Clinical Scientist with the Medical Research Council
- ♦ Bachelor's Degree in Medicine

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

## Management



### Ms. Aunió Lavarías, María Eugenia

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





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# Structure and Content

The structure of the contents has been designed by a team of professionals who recognize the implications that specialization has on daily practice in the field of nutrition, who are aware of the relevance of current training in Nutrition and Disease and are committed to quality teaching using new educational technologies.







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*This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market"*

## Module 1. Assessment of Nutritional Status and Diet. Practical Application

- 1.1. Bioenergy and Nutrition
  - 1.1.1. Energy Needs
  - 1.1.2. Methods of Assessing Energy Expenditure
- 1.2. Assessment of Nutritional Status
  - 1.2.1. Body Composition Analysis
  - 1.2.2. Clinical Diagnosis. Symptoms and Signs
  - 1.2.3. Biochemical, Hematological and Immunological Methods
- 1.3. Intake Assessment
  - 1.3.1. Methods for Analyzing Food and Nutrient Intake
  - 1.3.2. Direct and Indirect Methods
- 1.4. Update on Nutritional Requirements and Recommended Intakes
- 1.5. Nutrition in a Healthy Adult. Objectives and Guidelines. Mediterranean Diet
- 1.6. Nutrition in Menopause
- 1.7. Nutrition in the Elderly

## Module 2. Nutrition in Digestive Tract Pathologies

- 2.1. Nutrition in Oral Disorders
  - 2.1.1. Taste
  - 2.1.2. Salivation
  - 2.1.3. Mucositis
- 2.2. Nutrition in Esophageal and Gastric Disorders
  - 2.2.1. Gastroesophageal Reflux
  - 2.2.2. Gastric Ulcers
  - 2.2.3. Dysphagia
- 2.3. Nutrition in Post-Surgical Syndromes
  - 2.3.1. Gastric Surgery
  - 2.3.2. Small Intestine
- 2.4. Nutrition in Bowel Function Disorders
  - 2.4.1. Constipation
  - 2.4.2. Diarrhea
- 2.5. Nutrition in Malabsorption Syndromes

- 2.6. Nutrition in Colonic Pathology
  - 2.6.1. Irritable Bowel
  - 2.6.2. Diverticulosis
- 2.7. Nutrition in Inflammatory Bowel Disease (IBD)
- 2.8. Most Frequent Food Allergies and Intolerances with Gastrointestinal Effects
- 2.9. Nutrition in Liver Diseases
  - 2.9.1. Portal Hypertension
  - 2.9.2. Hepatic Encephalopathy
  - 2.9.3. Liver Transplant
- 2.10. Nutrition in Biliary Diseases. Biliary Lithiasis
- 2.11. Nutrition in Pancreatic Diseases
  - 2.11.1. Acute Pancreatitis
  - 2.11.2. Chronic Pancreatitis

## Module 3. Nutrition in Endocrine-Metabolic Diseases

- 3.1. Dyslipidemia and Arteriosclerosis
- 3.2. Diabetes Mellitus
- 3.3. Hypertension and Cardiovascular Disease
- 3.4. Obesity
  - 3.4.1. Etiology. Nutrigenetics and Nutrigenomics
  - 3.4.2. Pathophysiology of Obesity
  - 3.4.3. Diagnosis of the Disease and its Comorbidities
  - 3.4.4. Multidisciplinary Team in Obesity Treatment
  - 3.4.5. Dietary Treatment. Therapeutic Possibilities
  - 3.4.6. Pharmacological Treatment. New Drugs
  - 3.4.7. Psychological Treatment
    - 3.4.7.1. Intervention Models
    - 3.4.7.2. Treatment of Associated Eating Disorders
  - 3.4.8. Surgical Treatments
    - 3.4.8.1. Indications
    - 3.4.8.2. Techniques
    - 3.4.8.3. Complications
    - 3.4.8.4. Dietary Management
    - 3.4.8.5. Metabolic Surgery

- 3.4.9. Endoscopic Treatments
  - 3.4.9.1. Indications
  - 3.4.9.2. Techniques
  - 3.4.9.3. Complications
  - 3.4.9.4. Patient Dietary Management
- 3.4.10. Physical Activity in Obesity
  - 3.4.10.1. Assessment of the Patient's Functional Capacity and Activity
  - 3.4.10.2. Activity-based Prevention Strategies
  - 3.4.10.3. Intervention in the Treatment of the Disease and Associated Pathologies
- 3.4.11. Update on Diet and Obesity Studies
- 3.4.12. International Intervention Strategies for Obesity Control and Prevention

#### Module 4. Nutrition in Kidney Diseases

- 4.1. Glomerular Disorders and Tubulopathies
- 4.2. Predialysis Chronic Renal Failure
- 4.3. Chronic Renal Failure and Dialysis
- 4.4. Gout and Hyperuricemia

#### Module 5. Nutrition in Neurological Diseases

- 5.1. Swallowing Disorders
- 5.2. Disabling Neuromuscular Disorders
- 5.3. Stroke
- 5.4. Parkinson's Disease
- 5.5. Alzheimer's Disease

#### Module 6. Nutrition in Special Situations

- 6.1. Nutrition in Metabolic Stress Situations
  - 6.1.1. Sepsis
  - 6.1.2. Polytrauma
  - 6.1.3. Burns
  - 6.1.4. Transplant Recipient

- 6.2. Oncology Patient Nutrition
  - 6.2.1. Surgical Treatment
  - 6.2.2. Chemotherapy Treatment
  - 6.2.3. Radiotherapy Treatment
  - 6.2.4. Bone Marrow Transplant
- 6.3. Immune Diseases
  - 6.3.1. Acquired Immunodeficiency Syndrome

#### Module 7. Nutritional Deficiency Diseases

- 7.1. Malnutrition
  - 7.1.1. Hospital Malnutrition
  - 7.1.2. The Fasting and Refeeding Cycle
- 7.2. Anemia. Hemochromatosis
- 7.3. Vitamin Deficiencies
- 7.4. Osteoporosis
- 7.5. Oral Disease and its Relation to Diet

#### Module 8. Artificial Nutrition in Adults

- 8.1. Enteral Nutrition
- 8.2. Parenteral Nutrition
- 8.3. Artificial Nutrition at Home
- 8.4. Adapted Oral Nutrition

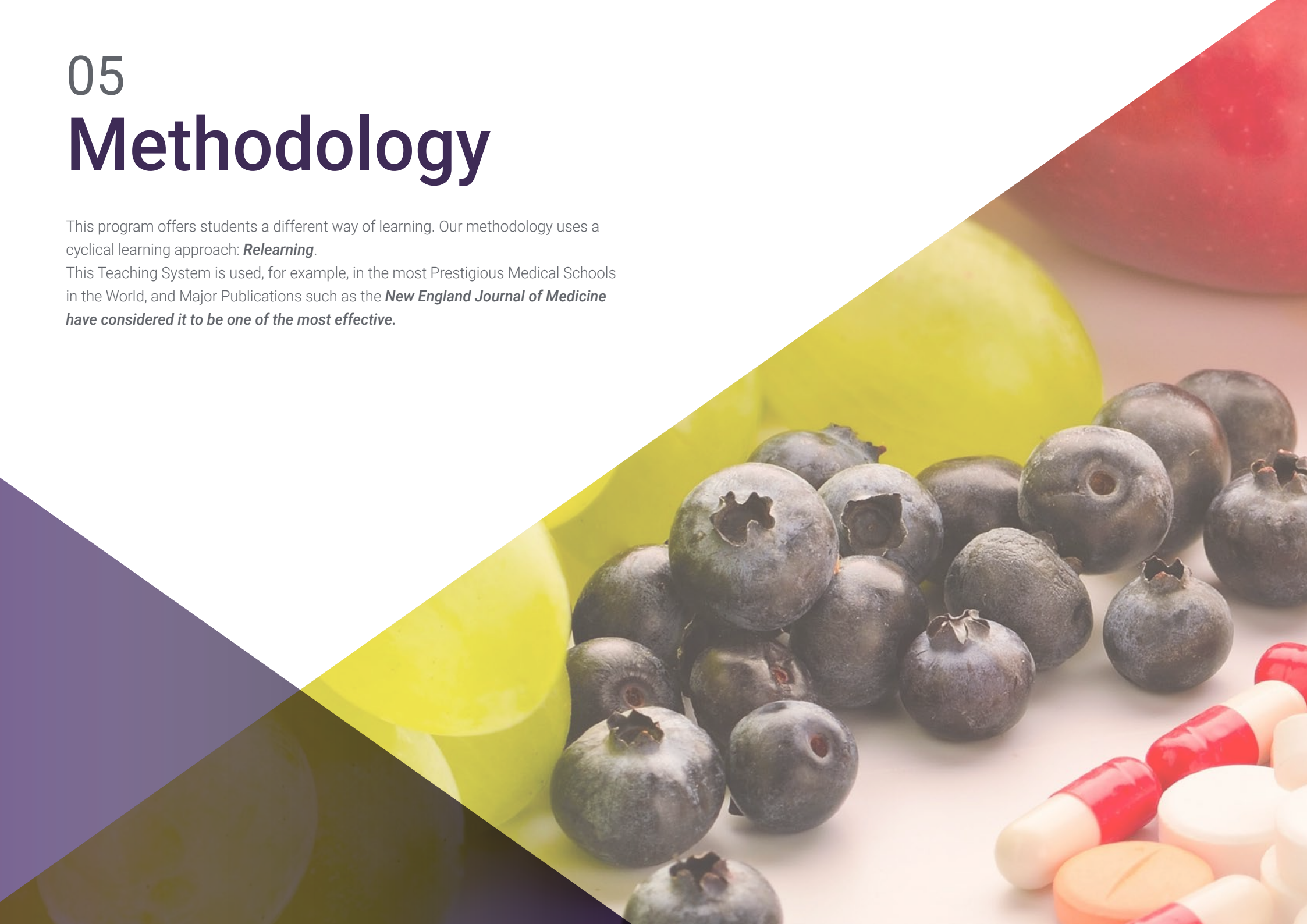


*Make the most of the opportunity and take the step to get up-to-date on the latest developments in Nutrition and Disease"*

# 05 Methodology

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

This Teaching System is used, for example, in the most Prestigious Medical Schools in the World, and Major Publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





The background of the slide is a composite image. On the left, there's a close-up of a peach, partially cut, showing its yellow-orange flesh and red skin. Below the peach, there are several white and red capsules and tablets scattered on a light surface. On the right, a dark glass bottle is visible, partially obscured by a diagonal white and purple gradient overlay that runs from the top right towards the bottom left.

“

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



## At TECH, we use the Case Method

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

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



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

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

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

1. Nutritionists who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the nutritionist to better integrate knowledge into clinical practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
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

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

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

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





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

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

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

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

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



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



#### Study Material

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

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



#### Nutrition Techniques and Procedures on Video

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



#### Interactive Summaries

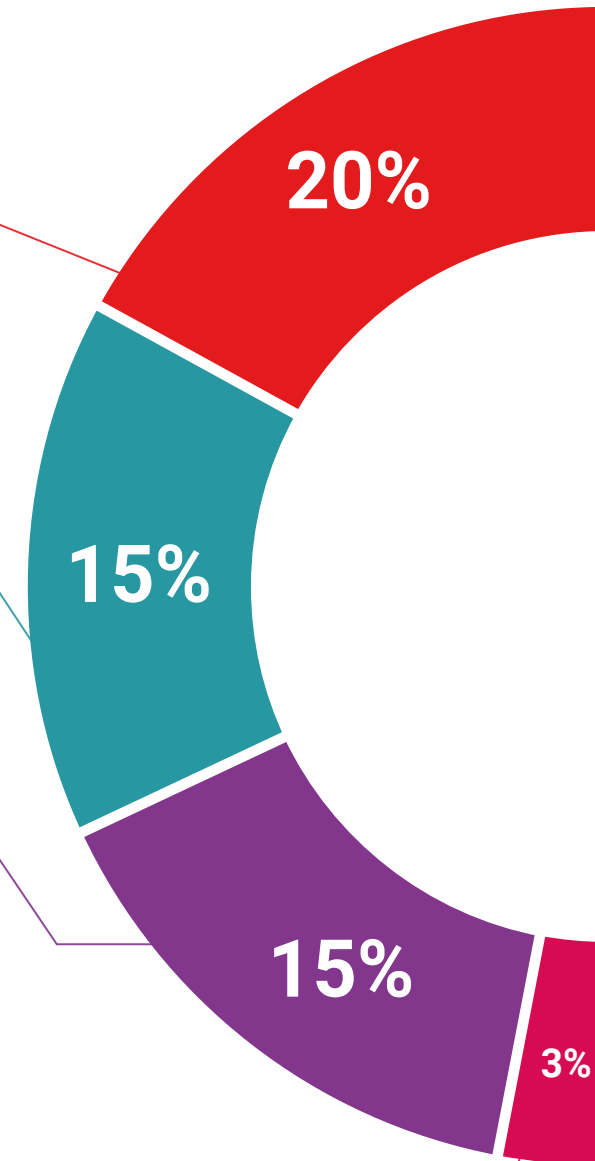
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

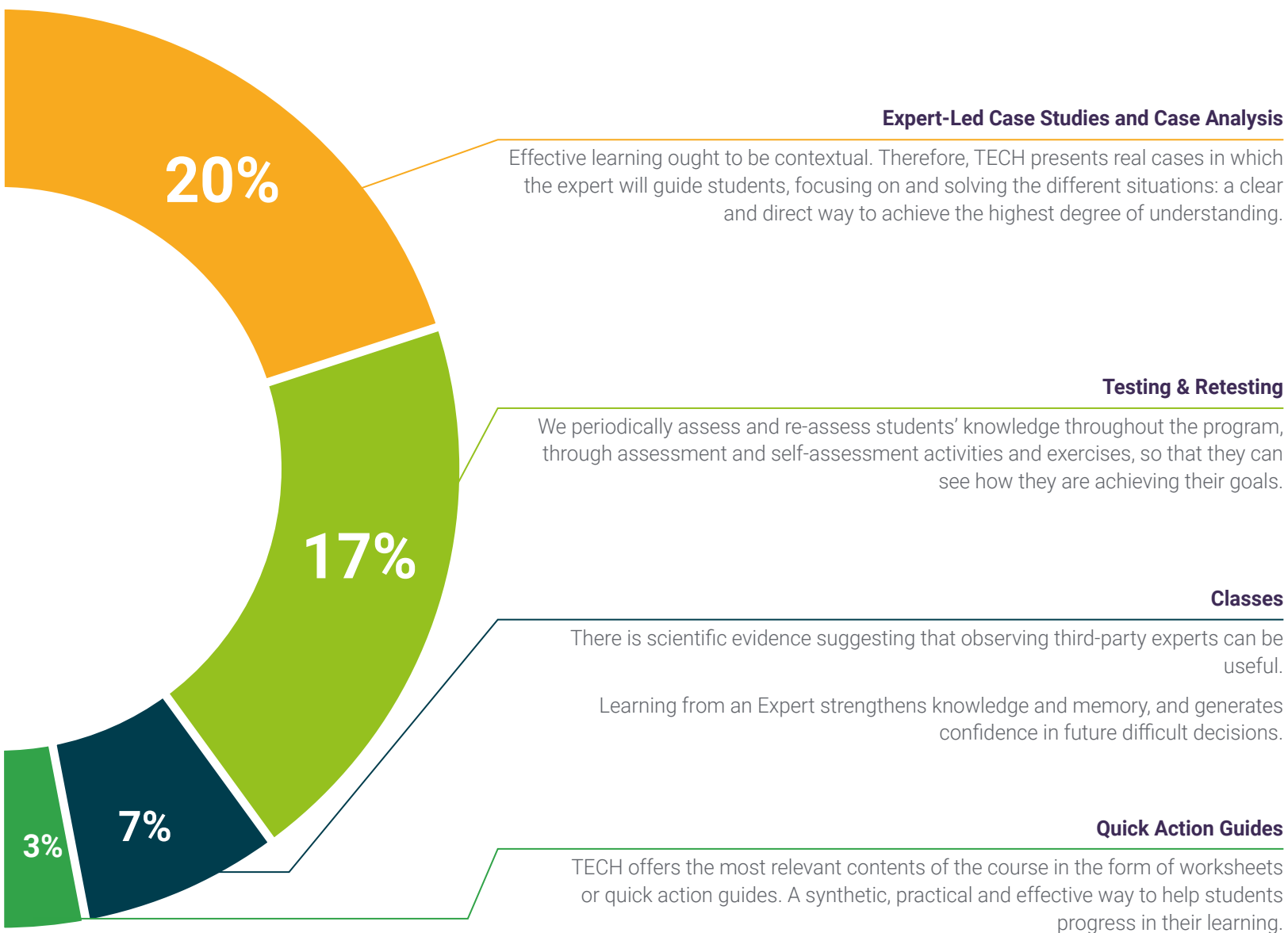


#### Additional Reading

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







# 06 Certificate

The Postgraduate Diploma in Nutrition and Disease guarantees, in addition to the most accurate and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Diploma in Nutrition and Disease** endorsed by **TECH Global University**, the world's largest online university.

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

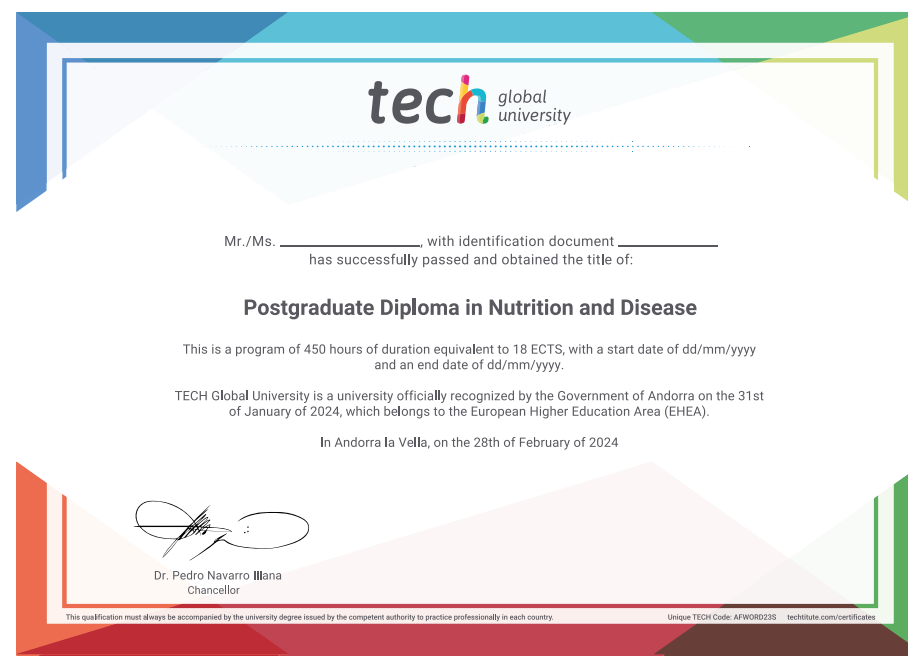
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Nutrition and Disease**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**







## Postgraduate Diploma Nutrition and Disease

- » Modality: online
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- » Schedule: at your own pace
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