



## Postgraduate Diploma Nutrition and Disease

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/in/pharmacy/postgraduate-diploma/postgraduate-diploma-nutrition-disease

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## tech 06 | Introduction

Specialization in nutrition is an essential response from professionals to provide care and implement preventive measures for the population in matters of food and health. This program offers the student the possibility to deepen and update knowledge, using the latest educational technology.

The syllabus covers the main current topics in Nutrition in such a way that whoever masters them will be prepared to work in this field. Therefore, it is not just another qualification on your professional profile, 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 allows the pharmacist to specialize in the field of Clinical Nutrition in areas of special interest such as:

- Nutrigenetics
- Nutrigenomics
- Nutrition and obesity
- Hospital dietetics
- Nutritional Trends

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 available from any fixed or portable device with an Internet connection



You will be trained by professionals with extensive experience in Clinical Nutrition in Pharmacy, who will guide you throughout the educational process"



This Postgraduate Diploma may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in and Nutrition and Disease, you will obtain a Postgraduate Diploma from TECH Technological University"

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

Thanks to their multimedia content developed with the latest educational technology, they will allow the pharmacist to learn in a contextual and situated way, i.e. a simulated environment that will provide immersive learning programmed to train in real situations.

This program is designed around Problem-Based Learning, by means of which the pharmacist must try to solve the different situations of their professional practice that arise during the program.

For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of radiology with extensive teaching experience.

This Postgraduate Diploma offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.

It includes real cases to bring the development of the program as close as possible to the reality of pharmacy care.







## tech 10 | Objectives



#### **General Objectives**

- Update the knowledge on new trends in human nutrition, in both healthy 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 training
- Encourage professional stimulation through continuous education and research
- Train 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**

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

- Assess and calculate nutritional requirements in health and disease at any stage of the life cycle
- Predict patients' nutritional risk
- Early detection and assessment of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- Assess and maintain adequate hygiene and food safety practices, applying current legislation
- 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

#### Module 2. Nutrition in Digestive System Pathologies

- Describe the main malabsorption syndromes and how they are treated
- Study the interrelationship between diet and oral disease
- Identify nutritional factors involved in gastroesophageal reflux and ulcers
- Get up to date on the management of patients with swallowing problems
- Reflect on the etiology of constipation and its relationship to diet in adults
- Reflect on new techniques in digestive and intestinal surgery and their impact on patient nutrition
- Get up to date on small intestine management procedures
- Know the dietary treatment for biliary and pancreatic pathologies
- Explain the role of the intestinal microbiota and its implications in diseases



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

- Update knowledge on the treatment of dyslipidemias and the role that nutrition plays in their development and treatment
- Identify dietary factors related to bone metabolism
- Identify dietary factors involved in hyperuricemia
- Identify dietary and lifestyle factors involved in the genesis and treatment of osteoporosis

#### Module 4. Nutrition in Kidney Diseases

- Understand the implications that nutrition can have in the treatment of liver diseases
- Get up to date on dietary management procedures for adults with chronic renal failure and on dialysis

#### Module 5. Nutrition in Neurological Diseases

- Review the psychological bases and biopsychosocial factors that affect human eating behavior
- Get up to date on the procedures for dietary management of patients with disabling neuromuscular pathology and strokes
- Identify the nutritional support needs of patients with Parkinson's disease and Alzheimer's disease at each evolutionary stage

#### Module 6. Nutrition in Special Situations

- Identify the relationship between nutrition and immune status
- Review current trends in premature infant nutrition
- Identify eating behavior disorders
- Manage the diet of critically ill patients
- $\bullet\,$  Review the pathogenesis and update the treatment of inborn errors of metabolism
- Review the rationale for dietary support of acute diarrhea
- Update knowledge on food allergies and intolerances

#### Module 7. Nutrition in Deficiency Diseases

- Acquire technical knowledge on the handling of systems and devices necessary for nutritional support in critically ill patients
- Learn and understand the nutritional treatment of the most common deficiency diseases in our environment
- Provide nutritional support to different oncology patients
- Update knowledge in the light of the current evolution of HIV patients on the nutritional support of the disease
- Update the management of nutritional support in inflammatory diseases
- Incorporate the nutritional treatment of the most prevalent deficiency diseases in adults
- Manage the type II diabetic diet and other lifestyle factors

#### Module 8. Artificial Nutrition in Adults

- Gain up-to-date knowledge on the dietetic treatment of oral cavity pathologies in adults paying special attention to sensory disorders and mucositis
- Identify patients with nutritional risk or established malnutrition susceptible to specific support
- Evaluate and monitor the supervision of nutritional support
- Update knowledge of specific formulae for artificial nutrition in adults





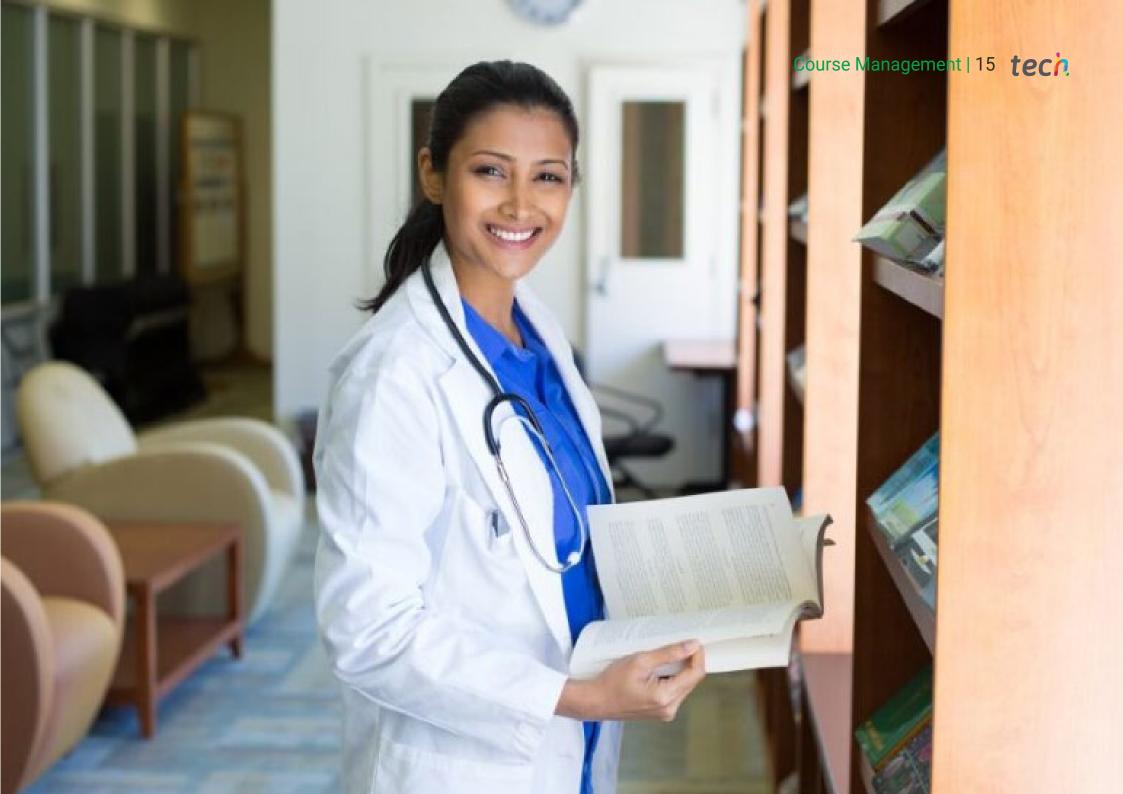
## tech 14 | Course Management

#### Management



### Ms. Aunión Lavarías, María Eugenia

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







## tech 18 | Structure and Content

#### 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 The Mediterranean Diet
- 1.6. Nutrition in Menopause
- 1.7. Nutrition in the Elderly

#### Module 2. Nutrition in Digestive System 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. National and 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. Nutrition in Oncology Patients with
  - 6.2.1. Surgical Management
  - 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(AIDS)

#### Module 7. Nutrition in Deficiency Diseases

- 7.1. Malnutrition
  - 7.1.1. Hospital Malnutrition
  - 7.1.2. The Fasting and Refeeding Cycle
- 7.2. Anaemia. 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



A unique, key, and decisive training experience to boost your professional development"

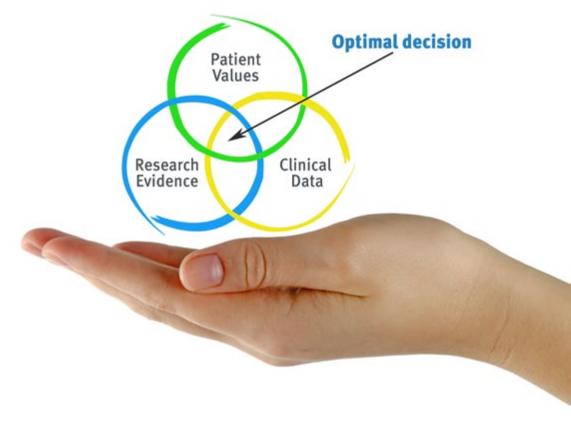


## tech 22 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will be confronted with multiple simulated clinical cases based on real patients, in which they will have to investigate, establish hypotheses and ultimately, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Pharmacists learn better, more quickly and more sustainably over time.

With TECH you will 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, attempting to recreate the actual conditions in a pharmacist's professional 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. Pharmacists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 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.



## tech 24 | Methodology

### **Relearning Methodology**

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

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

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



### Methodology | 25 tech

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

With this methodology, more than 115,000 pharmacists have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. This pedagogical methodology is developed in a highly demanding environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your 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.

## tech 26 | Methodology

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



#### **Study Material**

All teaching material is created specifically for the course by specialist pharmacists who will be teaching the course, so that the didactic development is highly specific and accurate.

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



#### **Video Techniques and Procedures**

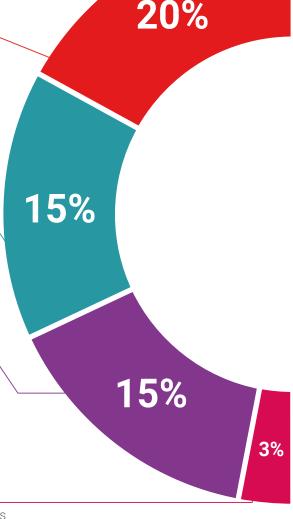
TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current pharmaceutical care procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, you can watch 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 unique multimedia content presentation training system 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, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

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



#### Classes

There is scientific evidence on the usefulness of learning by observing experts.

The system known as 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.







## tech 30 | Certificate

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

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Diploma in Nutrition and Disease

Official No of hours: 450 h.



Tere Guevara Navarro

<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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