Postgraduate Diploma New Technologies Applied to the Food Industry



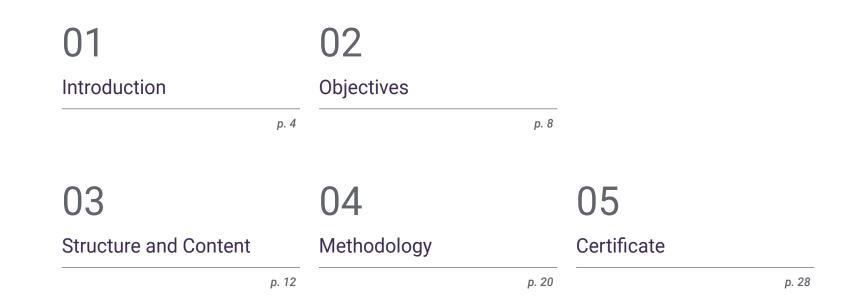


# **Postgraduate Diploma** New Technologies Applied to the Food Industry

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

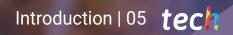
Website: www.techtitute.com/us/nutrition/postgraduate-diploma/postgraduate-diploma-new-technologies-applied-food-industry

# Index



# 01 Introduction

Food industries are becoming increasingly technological and automated, which means that food professionals need to keep abreast of the latest developments in the field. For this reason, TECH has designed this 100% online program, which offers its students a deeper understanding of the current trends in this industry so that they can aspire to important occupations. Thus, over a period of six months, they will be trained in topics such as biotechnological sectors and the most appropriate treatments for obtaining safe products for consumers. This program will provide access to a library of multimedia resources with topics designed by the most experienced enzyme specialists that can be accessed at any time.



With this 100% online Postgraduate Diploma you will be up to date in Enzymology and Business Management"

## tech 06 | Introduction

According to a report published by the International Labor Organization (ILO), the food industry is one of the most important and most employable economic sectors worldwide. In addition, the demand for specialized professionals in this field is expected to continue to grow in the coming years, driven by the increasing need for technology and automation in food production and processing.

These specialists perform important functions such as identifying and classifying the physical, chemical and microbiological agents that cause food spoilage and selecting the most appropriate strategies for their control. That is why TECH has created this Postgraduate Diploma in order to bring you closer to the key knowledge in the Basis of thermo-bacteriology and thus gain access to important job opportunities in this area.

A 100% online program, which will allow students to delve into the fundamentals of chemical engineering, delve into the most recent advances in the field of meat, fish and their derivatives. All of this is complemented by video summaries of each topic, detailed videos, case study simulations or essential readings that you can access 24 hours a day.

Students who train at TECH will have a wonderful opportunity to be up to date on everything related to the detection of factors that damage the integrity of food. All this through a flexible university degree, whose content can be easily viewed from any device with an internet connection. In addition, students can count on the Relearning system, used by TECH, which will allow them to reduce the long hours of study and advance through the syllabus in a much more agile way. This **Postgraduate Diploma in New Technologies Applied to the Food Industry** 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 Food Technology
- 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
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection



Learn about the latest and most important information on food product quality monitoring with this degree"

## Introduction | 07 tech



You have an extensive resource library with which you can consult the latest information on food shelf life estimation calculations at any time" Thanks to this Postgraduate Diploma you will be able to learn about the latest advances in the development of new processes and products in the field of meat, fish and their derivatives.

Access the latest information on environment, quality and enzyme use whenever you want, from your computer or tablet.

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

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

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

# 02 **Objectives**

The structure of this Postgraduate Diploma has been designed for the professional to obtain the most advanced and exhaustive knowledge update on Enzymology applied to the Food Industry. This will allow you to be up to date in the design and laboratory protocols to determine the enzymatic activity of commercial preparations or the formulation of new foods by choosing ingredients and additives. In order to achieve these goals, students will have specialists in this field to guide them and resolve any doubts that may arise regarding the content of the syllabus.

Objectives | 09 tech

In only 6 months you will be up to date on the use of enzymes in food processing and preservation while maintaining the quality standards required by current regulations"

# tech 10 | Objectives

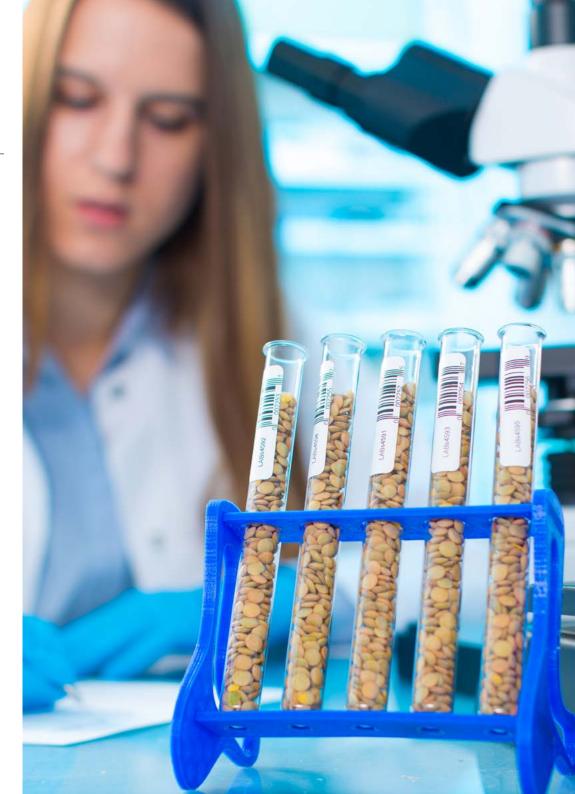


## **General Objectives**

- Know the influence that chemical engineering has had in recent years in the production and creation of foodstuffs
- Identify the main quality processes to which food products are subjected
- Apply knowledge of food chemistry in dietetics and nutrition
- Recognize the influence of Bromatology and its related aspects in the qualitative and quantitative food composition
- Analyze new technologies and their contribution to the food production process



A program that will allow you to update your knowledge of chemical engineering and reactor design for the food industry"





## Specific Objectives

### Module 1. Food Technology II

- Know, understand and use the principles of the basic fundamentals and technological processes suitable for the production, packaging and preservation of foodstuffs
- Evaluate the impact of processing on food properties
- Determine the suitability of technological advances for food and process innovation in the food industry
- Ability to know, understand and use the facilities of agri-food industries, their equipment and auxiliary machinery of the agri-food industry
- Ability to know, understand and control processes in the agri-food industry. Modeling and optimization of food processes

### Module 2. Science and Technology of meat, fish and fish products

- Identify and classify the physical, chemical and microbiological agents that cause food spoilage and select the most appropriate strategies for their prevention and control
- Identify and assess the physicochemical, sensory and nutritional characteristics of foods, their influence on processing and on the quality of the final product
- Elaborate, transform and preserve food considering quality and safety standards, integrating environmental management in these processes
- Formulate new foods by choosing the ingredients and additives, as well as the most appropriate treatments to obtain safe, nutritious and attractive products for the consumer
- Analyze the quality and estimate the shelf life of each of these foods according to their properties and storage conditions
- Contribute to the development of new processes and products in the field of meat, fish and fish by-products

### Module 3. Science and technology of milk and milk products

- Describe the phases and components of milk from the physical and chemical points of view, inferring their relationship with technological aptitudes, as well as the most important factors of variation of milk composition
- Identify and describe the operations of obtaining, collecting and transporting milk, and explain how the way they are carried out affects the quality of the raw material that reaches the industry
- To know and understand the operation of the equipment and installations used in the dairy industry for the technological treatment and packaging of milk, and for the production of different dairy products
- To design and plan the sampling of milk and dairy products, and to perform basic compositional, physicochemical and microbiological analysis

# 03 Structure and Content

This Postgraduate Diploma has been developed by experts in Decision Criteria and Process Control in the Food Industry. His extensive knowledge is reflected in the 3 modules that make up the structure of this university degree. Through it, students will be able to keep abreast of the latest developments in the enzymatic modification of carbohydrates, lipids or proteins. Likewise, you will be able to delve into the technology used in the food industry for the preparation and preservation of meat, dairy or fish products. In addition, the Relearning method, based on the repetition of content, will allow you to progress through the content of this program in a much more agile way.

A study plan designed for nutrition professionals who wish to obtain a Postgraduate Diploma without neglecting other areas of their lives"

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### Module 1. Food Technology I

- 1.1. Introduction to Food Science and Technology
  - 1.1.1. Historical Development
  - 1.1.2. Concept of Food Science and Technology
  - 1.1.3. Objectives of Food Technology. Relationships With Other Sciences
  - 1.1.4. Worldwide Food Industries
- 1.2. Preparation Methods Including Dry and Wet Preparation and Peeling
  - 1.2.1. Reception of Food in the Food Industry and Preparation of Raw Material
  - 1.2.2. Cleaning: Dry and wet Methods
  - 1.2.3. Selection and Classification
  - 1.2.4. Main hair Methods
  - 1.2.5. Peeling Equipment
- 1.3. Downsizing and Upsizing
  - 1.3.1. General Objectives
  - 1.3.2. Dry Food Size Reduction Equipment and applications
  - 1.3.3. Fibrous Food Size Reduction Equipment and applications
  - 1.3.4. Effect on Foods
  - 1.3.5. Size reduction of liquid foodstuffs: homogenization and atomization1.3.5.1. Equipment and applications
  - 1.3.6. Enlargement techniques: Enlargement: Agglomeration, Instantaneous Agglomeration or Granulation
- 1.4. Causes and Factors Involved in Food Spoilage
  - 1.4.1. Description of the Causes of Food Spoilage
  - 1.4.2. Factors Involved in Food Spoilage
  - 1.4.3. Actions to Combat Physical and Chemical Spoilage
  - 1.4.4. Possible Actions to Prevent or Delay Microbial Activity
- 1.5. Blanching processing
  - 1.5.1. General Aspects. Objectives
  - 1.5.2. Blanching Methods: Steam, Hot Water and other Methods
  - 1.5.3. Evaluation of Blanching in Fruits and Vegetables
  - 1.5.4. Equipment Facilities
  - 1.5.5. Effects on the Nutritional and Sensory Properties of Foods



## Structure and Content | 15 tech

- 1.6. Fundamentals of thermobacteriology
  - 1.6.1. Basis of Thermobacteriology
  - 1.6.2. Kinetics of Microbial Destruction by Heat
  - 1.6.3. Survival Graph Value Concept D. Thermal Destruction Graphs
  - 1.6.4. Z-value: Concept of Commercial Sterility
  - 1.6.5. F and Fo Values Practical Examples of Heat Treatment Calculations in the Canning Industry
- 1.7. Pasterization
  - 1.7.1. Concepts and Objectives
  - 1.7.2. Types of Pasteurization Applications in the Food Industry
  - 1.7.3. Effect on Foods
    - 1.7.3.1. Milk Pasteurization: Lactoperoxidase Test
- 1.8. Sterilization
  - 1.8.1. Objectives
  - 1.8.2. Sterilization of packaged foods
  - 1.8.3. Filling, evacuation and container closing operations
  - 1.8.4. Types of Sterilizers: Discontinuous and Continuous UHT Treatment
  - 1.8.5. Effect on Foods
- 1.9. Microwave heating
  - 1.9.1. General aspects of electromagnetic radiations
  - 1.9.2. Microwave characteristics
  - 1.9.3. Dielectric properties of the material
  - 1.9.4. Conversion of Microwave Energy into Heat Equipment Applications
  - 1.9.5. Effect on Foods
- 1.10. Infrared Radiation
  - 1.10.1. Theoretical aspects
  - 1.10.2. Equipment and Facilities Applications
  - 1.10.3. Others Non-Ionizing Radiation

### Module 2. Meat, fish and meat products science and technology

- 2.1. Introduction to the muscle food industry
  - 2.1.1. Muscle-based food industries: meat and fish2.1.1.1. Structural and functional basis of striated muscle
    - 2.1.1.2. Importance of these subsectors
  - 2.1.2. Transformation of muscle into flesh: development of rigor mortis 2.1.2.1. Consequences of rigor mortis
  - 2.1.3. Meat maturation: changes in muscle structure and other nitrogenous compounds2.1.3.1. Endogenous proteolytic enzymes2.1.3.2. Optimal ripening conditions
- 2.2. Anomalous processes in meat processing
  - 2.2.1. Effect of antemortem stress: DFD meats and PSE pork meats2.2.1.1. Defective sensory characteristics and technological suitability2.2.1.2. Effect of the administration of growth promoters
  - 2.2.2. Effect of postmortem refrigeration: shortening due to cold 2.2.2.1. Consequences
- 2.3. Meat quality
  - 2.3.1. Sensory parameters that determine it: color, texture, odor, flavor and water retention capacity of the meat
    - 2.3.1.1. Pre- and post-mortem factors influencing this
  - 2.3.2. Quality measurement and evaluation methods2.3.2.1. Integrated evaluation of meat quality and technological suitability2.3.2.2. Quality measurement and evaluation methods
  - 2.3.3. Quality assurance systems in the meat industry
- 2.4. Industrial meat processing
  - 2.4.1. Animal slaughtering, dressing and carcass preparation technology 2.4.1.1 Channel Classification
    - 2.4.1.2. Electrical stimulation of the carcasses
    - 2.4.1.3. Quartering and categorization
    - 2.4.1.4. Industrial pork carcass cutting
  - 2.4.2. Characteristics of industrial cattle, sheep, pig and poultry slaughterhouses
  - 2.4.3. Systems used in the short term preservation of meat
    - 2.4.3.1. Industrial equipment
    - 2.4.3.2. Shelf life of meat; factors that determine and improve shelf life

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- 2.4.4. Meat freezing
  - 2.4.4.1. Industrial equipment
  - 2.4.4.2. Effects of freezing on sensory and technological properties of meat 2.4.4.3. Defrosting
- 2.5. Meat packaging and sale
  - 2.5.1. Packaging systems; application to meat preservation and different types of meat sales
  - 2.5.2. Storage under vacuum and in modified atmospheres
  - 2.5.3. Packaging materials
  - 2.5.4. Distribution and sales systems
- Introduction to the fishing and seafood industry 2.6.
  - 2.6.1. Variability in composition and its causes
    - 2.6.1.2. Classification of fish according to its composition
    - 2.6.1.3. Peculiarities of fish lipids and their importance in technology
    - 2.6.1.4. Fish and seafood connective tissue
  - 2.6.2. Stunning and slaughtering methods: effects on quality 2.6.2.1. Postmortem processing in fish
  - 2.6.3. Differential characteristics of rigor mortis
  - 2.6.4. Most important parameters and their control
- 2.7. Fish quality
  - 2.7.1. Influence of fishery-related factors on fish quality 2.7.1.1. Main parameters of fish organoleptic quality
  - 2.7.2. Indices for determining the quality and freshness of fish and shellfish
  - 2.7.3. Methods of fish refrigeration
    - 2.7.3.1. Ice: types and effects
    - 2.7.3.2. Freezing: freezing speed and its influence on product quality
    - 2.7.3.3. Freezing maintenance: critical points and their control. Defrosting
  - 2.7.4. Fish and seafood packaging and preservation
    - 2.7.4.1. Vacuum and modified atmospheres
    - 2.7.4.2. Packaging systems and equipment

2.8. Meat derivatives technology

2.9.

- 2.8.1. Classification of meat derivatives according to their technological process 2.8.1.1. Preparation, preservation and processing operations 2.8.1.2. Salting, nitrification, drying, heat treatment and smoking 2.8.1.3. Spicing, refrigeration, microbial processes, ripening and chopping 2.8.1.4. Mixing, emulsifying, gelling, stuffing and packaging, etc. General decision and control criteria 282 2.8.3. Additives and other ingredients used in the meat industry 2.8.3.1. Technological adjuvants 2.8.3.2. Chemical preservatives and sensory modifiers 2.8.3.3. Mass and multifunction agents Criteria for use in relation to product quality 2.8.4. Technology of raw cured and cooked meat products 2.9.1. Whole cured meat products: cured ham and similar products 2.9.2. Impact of raw material quality on the final product. Formulation 2.9.2.1. Phases of the elaboration process 2.9.2.2. Modifications undergone during ripening and desiccation 2.9.2.3. Industrial equipment 2.9.3. Decision criteria and process control 2.9.3.1. Defects and alterations 2.9.3.2. Other whole cured products
- 2.9.4. Cured raw sausages. Formulation criteria 2.9.4.1. Phases and alternatives of the elaboration process
  - 2.9.4.2. Industrial equipment
  - 2.9.4.3. Modifications undergone during ripening and desiccation
- 2.9.5. Decision criteria and process control
- 2.9.6. Fish and fish product technology 2.9.6.1. Fish preservation by salting 2.9.6 2. Salting methods. Types and characteristics of salt
  - 2.9.6.3. Most frequent defects: causes and solutions
  - 2.9.6.4. Preparation of salted codfish

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- 2.9.7. Fish smoking
  - 2.9.7.1. Smoking systems. Types of smoke
  - 2.9.7.2. Processing methods: advantages and disadvantages
  - 2.9.7.4. Specific products: food quality and safety
- 2.9.8. Canned tuna. Most important species: characteristics 2.9.8.1. Elaboration process
  - 2.9.8.2. Semi-preserved fish. Salted anchovy. Marinades and pickling
- 2.9.9. Surimi and derived products
  - 2.9.9.1. Surimi elaboration process
  - 2.9.9.2. Gelation: characteristics and products
  - 2.9.9.3. Crab analogs manufacturing process technology

### Module 3. Science and technology of milk and milk products

- 3.1. Introduction to the dairy sector
  - 3.1.1. Milk and dairy products: concepts and definitions. Milk Science and Technology: concept and relationships with other sciences and disciplines
  - 3.1.2. The situation of the dairy sector at the global level
- 3.2. Chemical composition of milk I
  - 3.2.1. General composition of milk. Composition variation factors
  - 3.2.2. Milk minerals. Factors affecting the mineral composition of milk3.2.2.1. Physicochemical equilibria between minerals in milk3.2.2.2. Trace Elements
  - 3.2.3. Milk carbohydrates
    - 3.2.3.1. Lactose properties of technological interest: solubility, crystallization, hydrolysis and the Maillard reaction
    - 3.2.3.2. Technological problems of lactose
    - 3.2.3.3. Effects of other industrial treatments on lactose
  - 3.2.4. Lipid components of milk. Fat emulsion in milk3.2.4.1. The fat globule: size, composition, lipid nature
    - 3.2.4.2. Effects of industrial treatments on fat emulsion: agitation, homogenization and other treatments

3.3.1.1. Lipolytic enzymes present in milk: activation and inhibition3.3.2. Auto-oxidation of milk lipids

3.3.

- 3.3.2.1. Sensitivity of milk to lipid autoxidation
  - 3.3.2.2. Intrinsic and extrinsic factors affecting milk fat autooxidation
- 3.3.3. Other milk fat alterations

Chemical composition of milk II

3.3.1. Milk lipid rancidity

- 3.3.4. Nitrogenous components of milk
  - 3.3.4.1. The casein fraction of milk and its composition
  - 3.3.4.2. Micellar structure and stability

#### 3.4. Chemical composition of milk III

- 3.4.1. Destabilization of micelles: action of proteolytic enzymes, acidification and addition of salts
- 3.4.2. Whey protein

3.4.2.1. Effects of industrial processing on nitrogenous substances in milk

3.4.3. Enzymes of interest in milk

3.4.3.1. Classification: lipases, esterases, phosphatases and proteases

3.4.3.2. Enzymes of specific interest: xanthine oxidase, superoxide dismutase, catalase and lactoperoxidase

3.4.4. Milk vitamins

3.4.4.1. Liposoluble Vitamins

- 3.4.4.2. Hydrosoluble Vitamins
- 3.5. Physical-chemical and microbiological properties of milk
  - 3.5.1. Introduction to essential physicochemical parameters3.5.1.1. pH and titratable acidity3.5.1.2. Cryoscopic point
  - 3.5.2. Surface tension and viscosity. Electrical conductivity
  - 3.5.3. Concept and microbiological importance of milk
    3.5.3.1. Origin of milk microorganisms
    3.5.3.2. Microbial groups of technological interest
    3.5.3.3. Microorganisms of technological interest
  - 3.5.4. Effects of industrial treatments: refrigeration, heat treatment, homogenization

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- 3.6. General operations in packaged milks
  - 3.6.1. Conditions for milk collection and transport in the industry
     3.6.1.1. Receipt and control of milk in the industry:
     entry control, storage and physical purification
     3.6.1.2. Automated milk testing methods
  - 3.6.2. Pasteurization of milk: high and low pasteurization3.6.2.1. Technological problems associated with pasteurization3.6.2.2. Operation of a pasteurization plant
  - 3.6.3. Control of pasteurized milk
  - 3.6.4. Hygienized milk packaging
  - 3.6.5. Sterilized milk and UHT milk: definitions
    3.6.5.1. Manufacturing problems of sterilized and UHT milks
    3.6.5.2. Indirect and direct UHT treatment systems
    3.6.5.3. UHT milk controls
- 3.7. Partially dehydrated milk technologies
  - 3.7.1. Evaporated milk: types and manufacturing technology
  - 3.7.2. Condensed milk: types and manufacturing technology
  - 3.7.3. Treatment and authorized addition of raw materials
  - 3.7.4. Milk powder: types and manufacturing technology 3.7.4.1. Manufacture of instant milk powder
    - 3.7.4.2. Treatments, authorized additions and raw materials
- 3.8. Cream and butter
  - 3.8.1. Definition and commercial types of cream3.8.1.2. Treatments, authorized additions and raw materials
  - 3.8.2. Controls in the manufacturing plant
  - 3.8.3. Definition and types of butter
    3.8.3.1. Butter production by continuous methods
    3.8.3.2. Butter manufacture by discontinuous methods
    3.8.3.3. Treatments, authorized additions and raw materials
    3.8.4. Controls in the manufacturing plant





## Structure and Content | 19 tech

- 3.9. Dairy derivatives technology
  - 3.9.1. Definition and classification of cheeses
  - 3.9.2. General cheese making technology
     3.9.2.1. Primary processes: Milk selection, pasteurization, coagulation, coagulation, etc
     3.9.2.2. Secondary processes: draining, molding and pressing and salting
  - 3.9.3. Cheese ripening: conditioning factors and biochemistry
  - 3.9.4. Specific cheese making technologies3.9.4.1. Continuous and centrifugal dewatering methods3.9.4.2. Authorized additions and authorized raw materials
  - 3.9.5. Microbiological criteria for dairy derivatives
- 3.10. Dairy derivatives technology
  - 3.10.1. Definition and Classification
  - 3.10.2. Milks subjected to acid fermentation: yoghurts
  - 3.10.3. Milks subjected to acid-alcoholic fermentation
  - 3.10.4. Additives and authorized raw materials
  - 3.10.5. Applicable microbiological criteria

**666** Thanks to this 100% online Postgraduate Diploma you will be up to date with enzymatic processes in the food industry"

# 04 **Methodology**

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

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

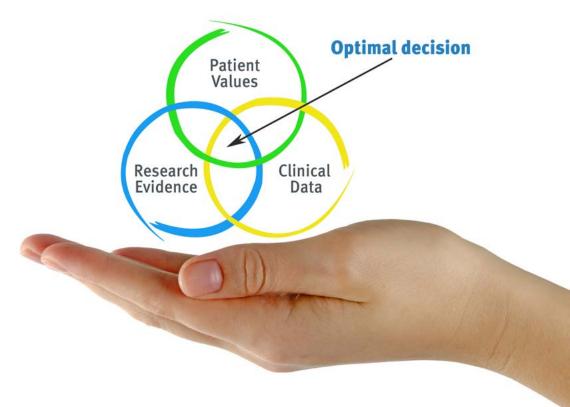
Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

## tech 22 | Methodology

## At TECH we use the Case Method

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

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



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

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

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

 Nutritionists who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.

**2.** Learning is solidly translated into practical skills that allow the nutritionist to better integrate knowledge into clinical practice.

3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.

 Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



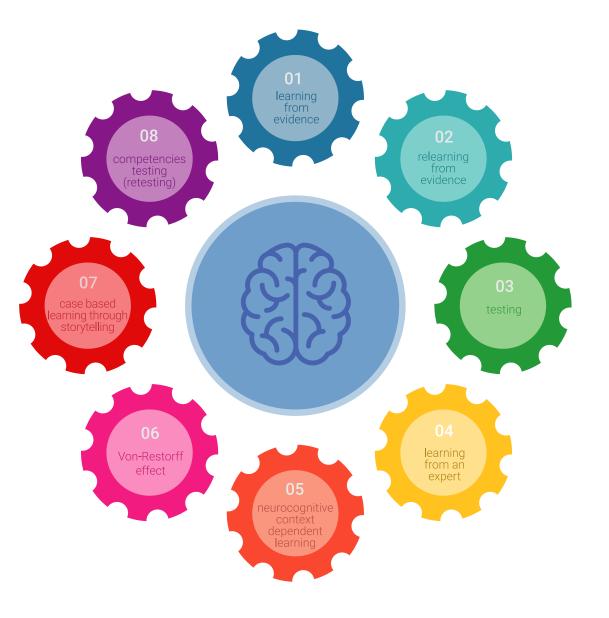
## tech 24 | Methodology

## **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 the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

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



## Methodology | 25 tech

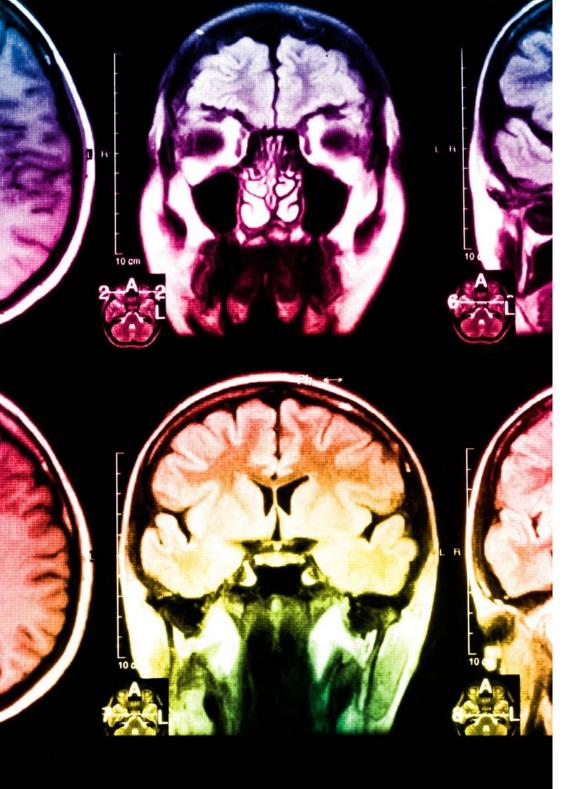
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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

Relearning will allow you to learn with less effort and better performance, involving you more in your training, 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 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 produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

20%

15%

3%

15%

These contents are then 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.



#### **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.

## Methodology | 27 tech



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

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

20%

7%

3%

17%



### **Testing & Retesting**

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



#### Classes

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

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



#### Quick Action Guides

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

# 05 **Certificate**

The Postgraduate Diploma in New Technologies Applied to the Food Industry guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

## tech 30 | Certificate

This **Postgraduate Diploma in New Technologies Applied to the Food Industry** contains the most complete and up-to-date scientific 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 diploma 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 New Technologies Applied to the Food Industry Official N° of Hours: 450 h.



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

# technological university Postgraduate Diploma New Technologies Applied to the Food Industry » Modality: online » Duration: 6 months » Certificate: TECH Technological University » Dedication: 16h/week » Schedule: at your own pace » Exams: online

Postgraduate Diploma New Technologies Applied to the Food Industry

