

Postgraduate Certificate HACCP System Implementation



Postgraduate Certificate HACCP System Implementation

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/nutrition/postgraduate-certificate/h-a-c-c-p-system-implementation

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01

Introduction

Due to the increasing consumer demand for safe and high quality food, sanitary regulations are becoming stricter and stricter. For this reason, the Hazard Analysis and Critical Control Point (HACCP) becomes a mandatory element in food production companies, because it allows the identification and control of the hazards that put the production chain at risk. With this in mind, TECH has developed a program consisting of two modules that provide a complete description of the elements of the food market and the management of control processes within the HACCP framework. This, through a 100% online modality that will allow students to have greater control over their time.



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It appropriates the concepts related to the HACCP System and applies its benefits in order to improve risk analysis and have greater control over food production processes"

This program in HACCP System Implementation is a unique opportunity for students to acquire specialized knowledge in the field of food production and processing, as well as the particularities that each type of food has at the time of its handling. With this in mind, participants will explore the technical fundamentals of conducting a good Hazard Analysis within the food production chain in order to ensure food safety and quality.

This will be possible thanks to the complete syllabus of the program, which will provide the definition of the concepts related to the composition of each kind of food of vegetable and animal origin, with the objective of recognizing the risks to which they can be subjected and the application of the appropriate technique to mitigate them. In addition, food safety will be studied in depth, which will be based on the recognition of the critical points of the production chain, as these will allow the student to integrate the appropriate strategies to prevent accidents or bad handling practices.

This program is offered through the innovative Relearning methodology, which allows 100% online study, giving students the flexibility to learn from anywhere and at any time that suits them. In addition, they will have access to multimedia resources 24 hours a day, allowing them to assimilate the content at their own pace. In addition, through the analysis of practical cases, participants will develop problem-solving skills by facing simulated situations in a realistic environment.

This **Postgraduate Certificate in HACCP System Implementation** 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 HACCP System Implementation
- ◆ 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 self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



A program designed for those professionals who are looking to achieve success within the Food Industry”

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Once you complete this program, you will be able to open up new job opportunities and increase your economic expectations”

Learning at your own pace is a reality thanks to the methodology of this program. Start now and be part of the professionals of the future.

Ensure your professional success by enrolling in this Postgraduate Certificate and stand out in the Food Industry.

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational 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. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



02 Objectives

The main objective of this educational program is to provide students with the latest developments in the Food Industry, equipping them with an in-depth knowledge of the practical aspects of carrying out HACCP System Implementation within the food production chain. In this way, students will be prepared to design and integrate the elements of this method to mitigate risks and have greater control over the process. All this will be achieved through the study of multimedia content that will strengthen the skills of the participants.



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The best multimedia content and the most innovative learning methodology on the market are waiting to help you grow professionally. Start now!”



General Objectives

- ◆ Recognize the levels of organization of prokaryotic and eukaryotic microorganisms, as well as relate their main structures to their function
- ◆ Understand the basis of microbial pathogenicity, and the defense mechanisms of the human body against existing pathogens
- ◆ Identify the main techniques and strategies for the inhibition, destruction or elimination of microbial populations
- ◆ Know and interrelate the main mechanisms of genetic exchange in microorganisms and their application in food biotechnology

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Reinforce the concepts necessary to identify and manage food risks, thanks to the innovative Relearning methodology”





Specific Objectives

- ◆ Control and optimize processes and products in the food industry.
Food manufacturing and preservation
- ◆ Develop new processes and products
- ◆ Know the industrial processes of food transformation and preservation, as well as packaging and storage technologies
- ◆ Discover the particular transformation and preservation processes of the main types of food industries
- ◆ Identify process and product control and optimization systems applied to the main types of food industries
- ◆ Apply knowledge of transformation and conservation processes to the development of new processes and products
- ◆ Identify and interpret the requirements of the food safety management standard (UNE EN ISO 22000) for its subsequent application and evaluation in food chain operators
- ◆ Develop, implement, evaluate and maintain appropriate hygiene practices, food safety and risk control systems
- ◆ Participate in the design, organization and management of different food services
- ◆ Collaborate in the implementation of quality systems
- ◆ Evaluate, control and manage aspects of traceability in the food supply chain
- ◆ Contribute towards consumer protection within the framework of food safety and quality

03

Structure and Content

The study itinerary of this Postgraduate Certificate has been designed by recognized experts in the Food Industry, with the objective of providing students with a first class education. In this way, participants will have the opportunity to learn in depth about the integration of HACCP into food production. This will be achieved through the study of multimedia resources and the analysis of case studies, which will allow our students to develop outstanding professional skills in this field.





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These two modules will allow you to gain a more comprehensive knowledge of HACCP application"

Module 1. Food Industry

- 1.1. Cereals and by-products I
 - 1.1.1. Cereals: production and consumption
 - 1.1.1.1. Classification of cereals
 - 1.1.1.2. Current state of research and industrial situation
 - 1.1.2. Cereal grain basics
 - 1.1.2.1.1. Methods and equipment for the characterization of flours and doughs
 - Rheological properties during kneading, proofing and baking
 - 1.1.3. Cereal products: Ingredients, additives and coadjuvants. Classification and effects
- 1.2. Cereals and by-products II
 - 1.2.1. Baking process: Stages, changes produced and equipment used
 - 1.2.2. Instrumental, sensory and nutritional characterization of cereal-derived products from cereals
 - 1.2.3. Application of cold in the bakery. Frozen precooked breads. Process and product quality
 - 1.2.4. Gluten-free products derived from cereals. Formulation, process and quality characteristics
 - 1.2.5. Food pastes. Ingredients and process. Types of pastes
 - 1.2.6. Innovation in bakery products. Trends in product design
- 1.3. Milk and dairy products. Eggs and egg products I
 - 1.3.1. Hygienic-sanitary milk quality
 - 1.3.1.1.1. Origin and levels of contamination. Initial and contaminating microbiota
 - 1.3.1.2. Presence of chemical contaminants: residues and pollutants
 - 1.3.1.3. Influence of hygiene in the milk production and marketing chain of milk
 - 1.3.2. Dairy production. Milk synthesis
 - 1.3.2.1. Factors influencing milk composition: extrinsic and intrinsic factors
 - 1.3.2.2.2. Milking: good process practices
 - 1.3.3. On-farm milk pretreatment: filtration, refrigeration and alternative preservation methods
 - 1.3.4. Treatments in the dairy industry: clarification and bacto-fugation, skimming, standardization, homogenization, deaeration. Pasteurization. Definition. Definition
 - 1.3.4.1. Types of pasteurizers. Packaging. Quality Control Sterilization. Definition
 - 1.3.4.2. Methods: conventional, UHT, other systems. Packaging. Quality control
 - Manufacturing defects
 - 1.3.4.3. Types of pasteurized and sterilized milk. Milk selection. Milkshakes and flavored milks. Mixing process. Enriched milks. Enrichment process
 - 1.3.4.4. Evaporated milk. Condensed milk
 - 1.3.5. Preservation and packaging systems
 - 1.3.6. Quality control of powdered milk
 - 1.3.7. Milk packaging and quality control systems
- 1.4. Milk and dairy products. Eggs and egg products I
 - 1.4.1. Dairy Derivatives. Creams and Butters
 - 1.4.2. Elaboration process. Continuous manufacturing methods. Packaging and preservation. Manufacturing defects and alterations
 - 1.4.3. Fermented milks: Yogurt. Milk preparatory treatments. Manufacturing processes and systems
 - 1.4.3.1. Tipos de yogurt. Problems in the elaboration. Quality Control
 - 1.4.3.2. BIO products and other acidophilic milks
 - 1.4.4. Cheese making technology: preparatory milk treatments
 - 1.4.4.1.1. Obtaining the curd: syneresis. Pressed. Salado
 - 1.4.4.2.2. Water activity in cheese. Brine control and conservation
 - 1.4.4.3. Cheese ripening: agents involved. Factors that determine maturation. Effects of contaminating biota
 - 1.4.4.4.4. Toxicological problems of cheese
 - 1.4.5. Additives and antifungal treatments
 - 1.4.6. Ice cream. Features. Types of ice cream. Elaboration processes
 - 1.4.7. Eggs and egg products
 - 1.4.7.1. Fresh egg: processing of fresh egg as a raw material for the production of egg products
 - 1.4.7.2. Egg products: liquid, frozen and dehydrated
- 1.5. Vegetable products I
 - 1.5.1. Physiology and postharvest technology. Introduction
 - 1.5.2. Fruit and vegetable production, the need for postharvest conservation
 - 1.5.3. Respiration: respiratory metabolism and its influence on postharvest preservation and deterioration of vegetables
 - 1.5.4. Ethylene: synthesis and metabolism. Involvement of ethylene in the regulation of fruit ripening
 - 1.5.5. Fruit ripening: The maturation process, generalities and its control
 - 1.5.5.1. Climacteric and non-climacteric maturation
 - 1.5.5.2. Compositional changes: physiological and biochemical changes during ripening and preservation of fruits and vegetables

- 1.6. Vegetable Products II
 - 1.6.1. Principle of fruit and vegetable preservation by the control of ambient gases
Mode of action and its applications in the preservation of fruits and vegetables
 - 1.6.2. Refrigerated storage. Temperature control in the preservation of fruits and vegetables
 - 1.6.2.1. Technological methods and applications
 - 1.6.2.2. Cold damage and its control
 - 1.6.3. Transpiration: control of water loss in fruit and vegetable preservation
 - 1.6.3.1. Physical principles. Control systems
 - 1.6.4. Postharvest pathology: main deteriorations and rots during fruit and vegetable preservation. Control systems and methods
 - 1.6.5. IV Range Products
 - 1.6.5.1. Physiology of plant products: handling and preservation technologies and conservation
 - 1.7. Vegetable Products III
 - 1.7.1. Preparation of canned vegetables: Overview of a typical canning line for vegetables
 - 1.7.1.1. Examples of the main types of canned vegetables and legumes
 - 1.7.1.2. New products of vegetable origin: cold soups
 - 1.7.1.4. General description of a typical fruit packaging line
 - 1.7.2. Juice and nectar processing: juice extraction and juice treatments
 - 1.7.2.1. Aseptic processing, storage and packaging systems
 - 1.7.2.2. Examples of production lines for the main types of juices
 - 1.7.2.3. Obtaining and preserving semi-finished products: cremogenates
 - 1.7.3. Production of jams, jellies and jams: production and packaging process
 - 1.7.3.1. examples of characteristic processing lines
 - 1.7.3.2. Additives used in the manufacture of jams and marmalades
 - 1.8. Alcoholic beverages and oils
 - 1.8.1. Alcoholic beverages: Wine. Elaboration process
 - 1.8.1.1. Beer: brewing process. Types
 - 1.8.1.2. Spirits and liquors: Manufacturing processes and types
 - 1.8.2. Oils and fats: Introduction
 - 1.8.2.1. Olive oil: Olive oil extraction system
 - 1.8.2.2. Oilseed oils. Extraction
 - 1.8.3. Animal fats: Refining of fats and oils
 - 1.9. Meat and meat by-products
 - 1.9.1. Meat industry: Production and consumption
 - 1.9.2. Classification and functional properties of muscle proteins: Myofibrillar, sarcoplasmic and stromal proteins
 - 1.9.2.1. Muscle to meat conversion: porcine stress syndrome
 - 1.9.3. Maturation of meat. factors affecting the quality of meat for direct consumption and industrialization
 - 1.9.4. Curing chemistry: ingredients, additives and curing aids
 - 1.9.4.1. Industrial curing processes: dry and wet curing process
 - 1.9.4.2. Nitrite Alternatives
 - 1.9.5. Raw and raw marinated meat products: fundamentals and problems of preservation. Characteristics of raw materials
 - 1.9.5.1. Types of products. Manufacturing operations
 - 1.9.5.2. Alterations and defects
 - 1.9.6. Cooked sausages and cooked hams: basic principles of meat emulsion preparation. Characteristics and selection of raw materials
 - 1.9.6.1. Technological manufacturing operations. Industrial systems
 - 1.9.6.2. Alterations and defects
 - 1.10. Seafood
 - 1.10.1. Fish and seafood. Features of technological interest
 - 1.10.2. Main industrial fishing and shellfishing gears
 - 1.10.2.1. Unit operations in fish technology
 - 1.10.2.2. Cold storage of fish
 - 1.10.3. Salting, pickling, drying and smoking: technological aspects of manufacture
 - 1.10.3.1. Final product characteristics. Performance
 - 1.10.4. Marketing
- Module 2. Quality and Food Safety Management**
- 2.1. Food Safety and Consumer Protection
 - 2.1.1. Definition and Basic Concepts
 - 2.1.2. Quality and Food Safety Evolution
 - 2.1.3. Situation in Developing and Developed Countries
 - 2.1.4. Key agencies and authorities for food safety: structures and functions
 - 2.1.5. Food fraud and food hoaxes: the role of the media of the media

- 2.2. Facilities, Premises and Equipment
 - 2.2.1. Site Selection: Design and Construction and Materials
 - 2.2.2. Premises, Facilities and Equipment Maintenance Plan
 - 2.2.3. Applicable Regulations
- 2.3. Cleaning and Disinfection Plan (L + D)
 - 2.3.1. Components of the dirt
 - 2.3.2. Detergents and Disinfectants: Composition and Functions
 - 2.3.3. Cleaning and Disinfection Stages
 - 2.3.4. Cleaning and Disinfection Programming
 - 2.3.5. Current Regulations
- 2.4. Pest Control
 - 2.4.1. Pest Control and Disinfestation (Plan D + D)
 - 2.4.2. Pests Associated with the Food Chain
 - 2.4.3. Preventive Measures for Pest Control
 - 2.4.3.1. Traps and traps for mammals and ground insects
 - 2.4.3.2. Traps and traps for flying insects
- 2.5. Traceability Plan and Good Manipulation Practices (GMP)
 - 2.5.1. Structure of a Traceability Plan
 - 2.5.2. Current regulations associated with traceability
 - 2.5.3. GMP Associated with Food Processing
 - 2.5.3.1. Food handlers
 - 2.5.3.2. Requirements that must be met
 - 2.5.3.3. Hygiene Training Plans
- 2.6. Components of Food Safety Management
 - 2.6.1. Water as an Essential Element in the Food Chain
 - 2.6.2. Biological and Chemical Agents Associated with Water
 - 2.6.3. Quantifiable Elements of Water Quality, Safety and Use
 - 2.6.4. Supplier Certification
 - 2.6.4.1. Supplier Control Plan
 - 2.6.4.2. Associated regulations in force
 - 2.6.5. Food Labeling
 - 2.6.5.1. Consumer information and allergen labeling
 - 2.6.5.2. Labeling of Genetically Modified Organisms



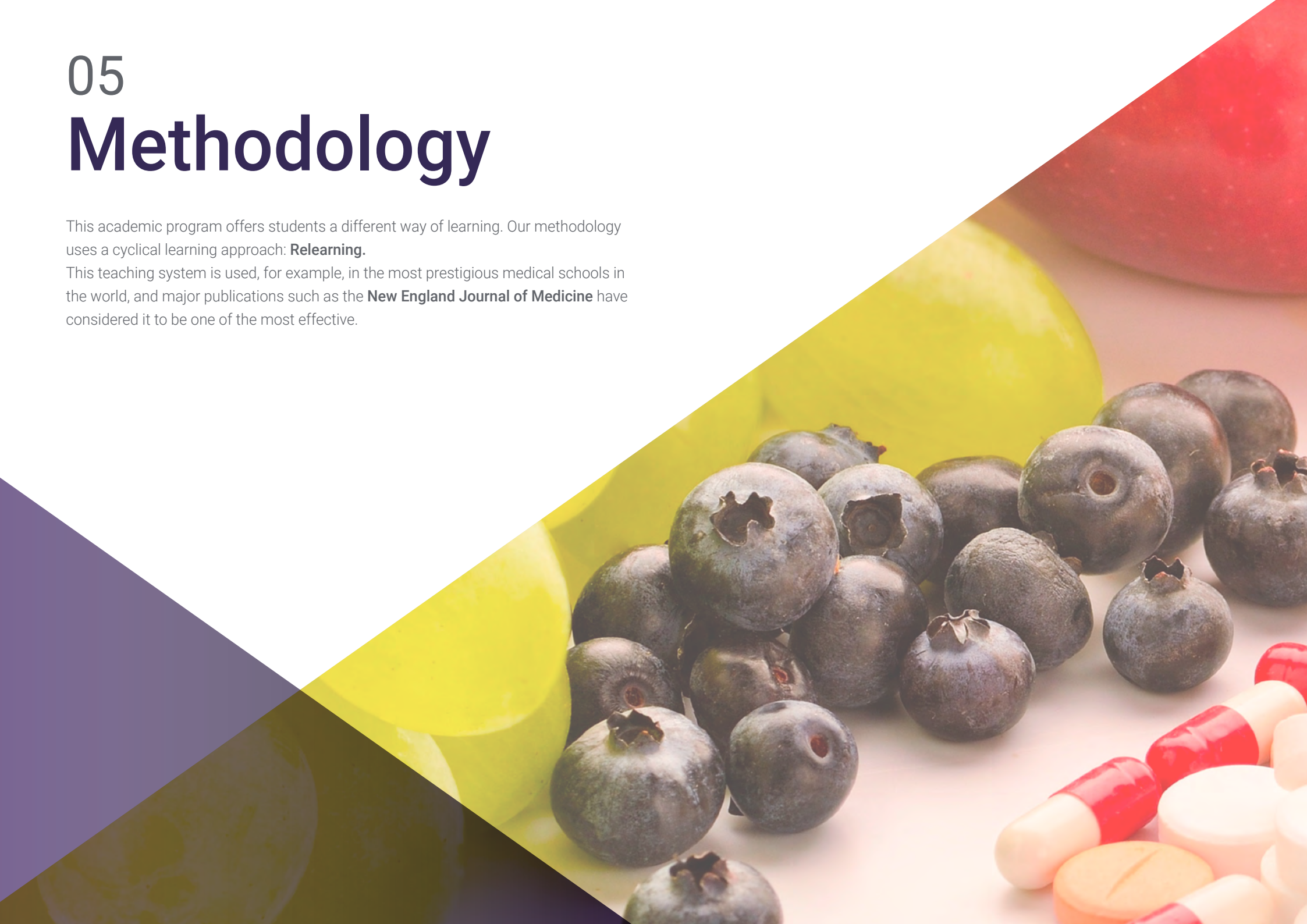


- 2.7. Food Crisis and Associated Policies
 - 2.7.1. Food Crisis Causes
 - 2.7.2. Food Security Crisis Scope, Management, and Response
 - 2.7.3. Alert Communication Systems
 - 2.7.4. Policies and Strategies for Improving Food Quality and Safety
- 2.8. HACCP plan design
 - 2.8.1. General Guidelines to be Followed for its Implementation: Underlying Principles and Prerequisite Program
 - 2.8.2. Management Commitment
 - 2.8.3. HACCP equipment configuration
 - 2.8.4. Description of the Product and Identification of its Intended Use
 - 2.8.5. Flow Diagrams
- 2.9. Development of the HACCP plan
 - 2.9.1. Defining Critical Control Points (CCPs)
 - 2.9.2. The seven basic principles of the HACCP plan
 - 2.9.2.1.1. Hazard identification and analysis
 - 2.9.2.2. Establishment of control measures for identified hazards
 - Determination of critical control points (CCP)
 - 2.9.2.4. Characterization of critical control points
 - 2.9.2.5. Establishment of critical limits
 - 2.9.2.6. Determination of corrective actions
 - 2.9.2.7. HACCP System Verification
- 2.10. ISO 22000
 - 2.10.1. ISO 22000 Principles
 - 2.10.2. Purpose and Field of Application
 - 2.10.3. Market Situation and Position in Relation to Other Applicable Standards in the Food Chain
 - 2.10.4. Application Requirements
 - 2.10.5. Food Safety Management Policy

05 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.





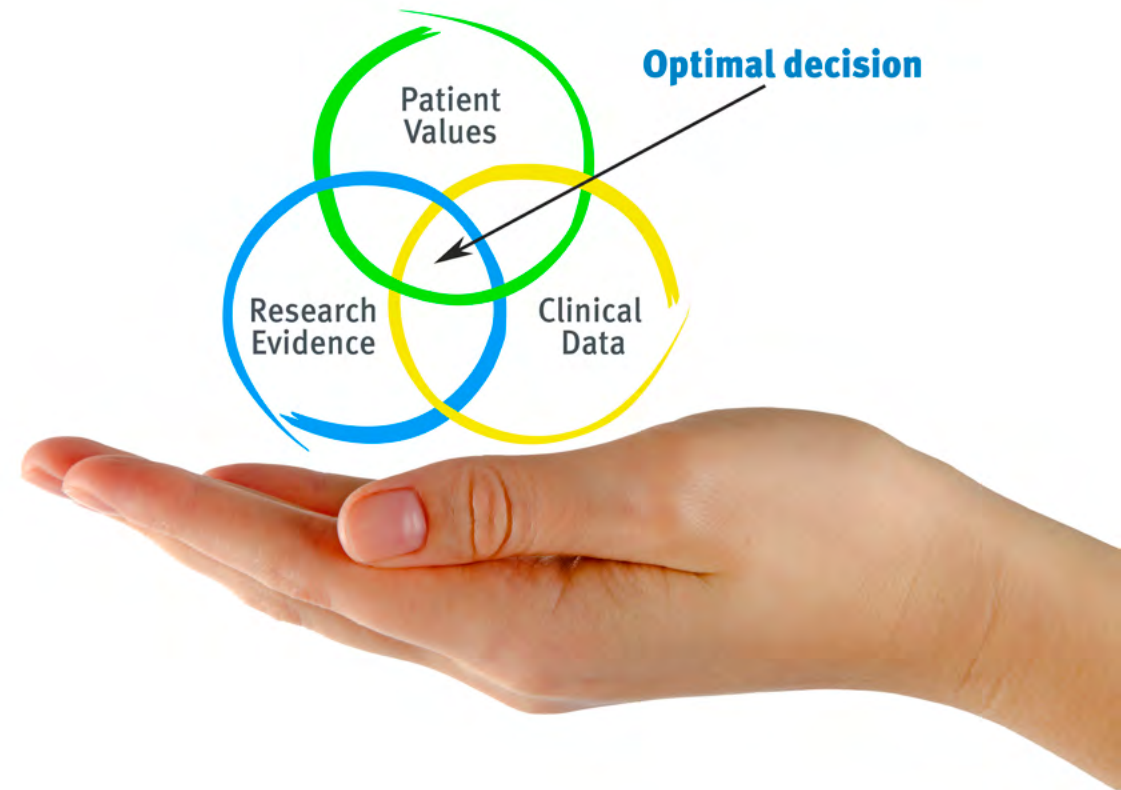
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH 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. Gervas, 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 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.
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 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.



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 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 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.



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 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

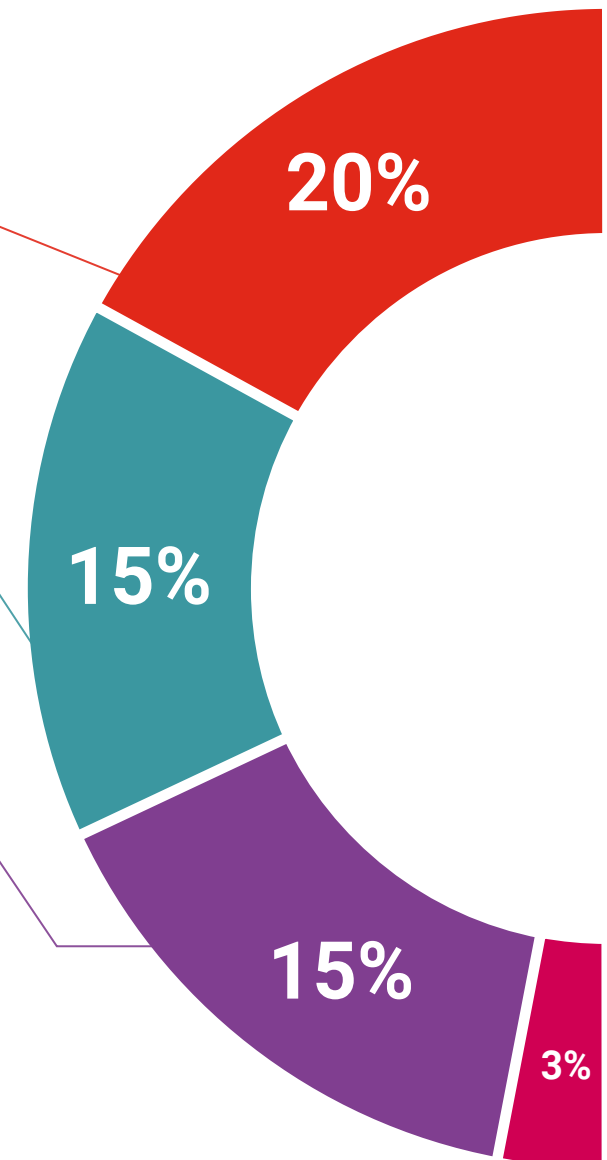
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

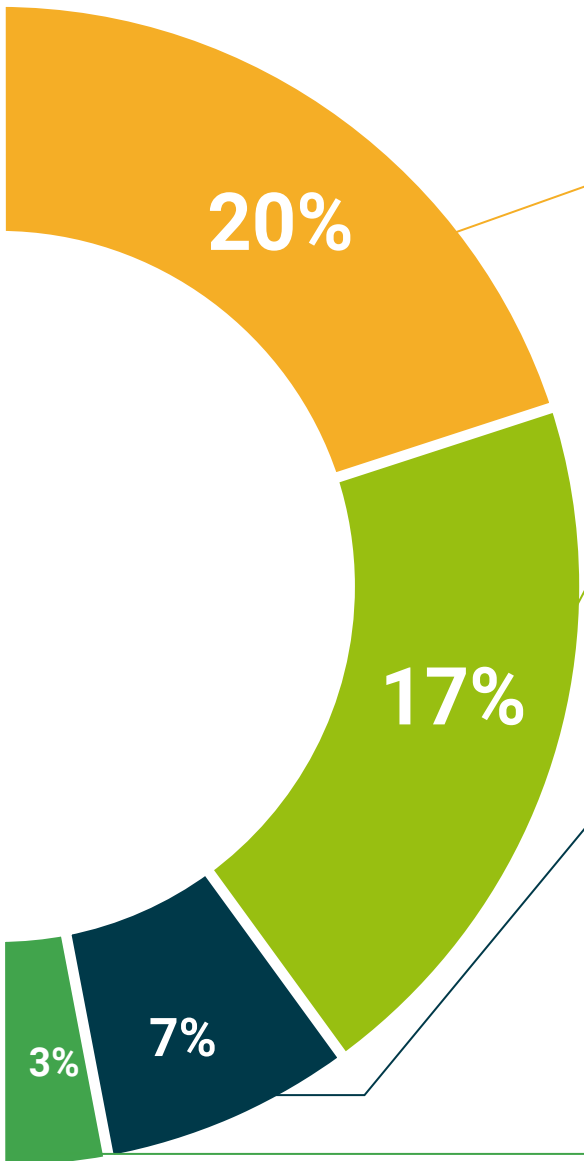
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





Expert-Led Case Studies and Case Analysis

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



Testing & Retesting

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



Classes

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

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



Quick Action Guides

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



05 Certificate

The Postgraduate Certificate in HACCP System Implementation guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



The image features two black graduation caps (mortarboards) against a bright blue sky with light, wispy clouds. One cap is in the foreground on the left, tilted upwards, with its black tassel hanging down. Another cap is in the background on the right, also tilted upwards. The scene is partially overlaid by a large white diagonal shape that extends from the bottom left towards the top right, and a purple diagonal shape that extends from the top right towards the bottom left.

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

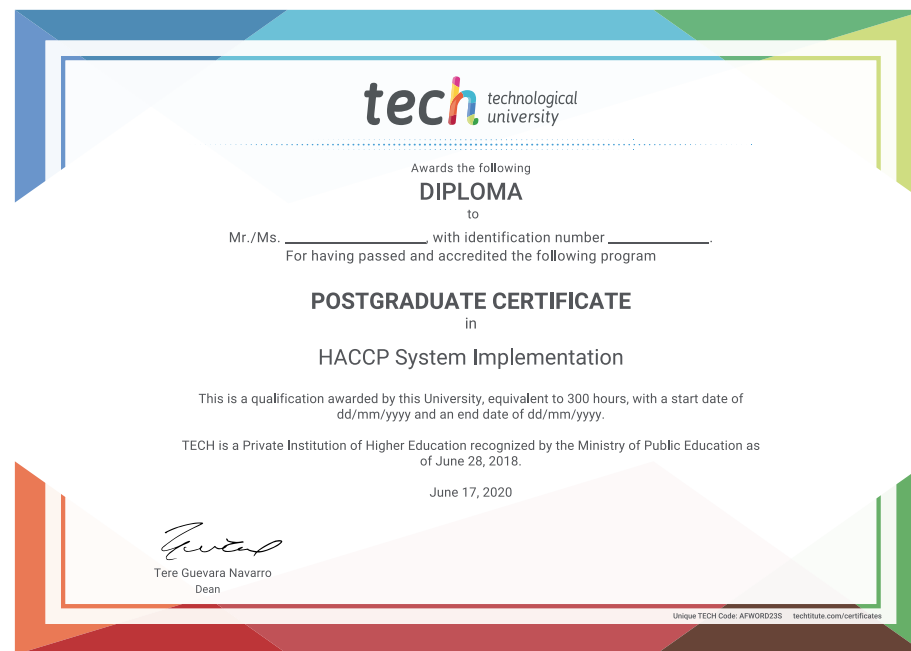
This **Postgraduate Certificate in HACCP System Implementation** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Certificate in HACCP System Implementation**

Official No. of Hours: **300 hours**.





Postgraduate Certificate HACCP System Implementation

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Postgraduate Certificate

HACCP System Implementation

