

Postgraduate Certificate

Food Safety Management and
Certification in the Food Industry

ISO 9001



Postgraduate Certificate

Food Safety Management and Certification in the Food Industry

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Global University
- » Credits: 12 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitude.com/us/nutrition/postgraduate-certificate/food-safety-management-certification-food-industry

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01 Introduction

The program in Food Industry Safety Management and Certification covers the most important concepts of hazard, risk and safety as applied to the food industry, as well as the methods used to control them, including allergens. It addresses the principles of safety assurance management in the food production industry, using the HACCP plan as a model, covering aspects such as documentation management, electronic records, audits and other requirements required for certification. It also considers the case of the ISO-17025 standard, since laboratory tests are a key element in decision-making for hazard control and risk assessment, including corrective actions. For all these reasons, this course is one of the most up to date on the market today.



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Master food safety certifications in the main global systems and become a prestigious nutritionist in the field today”

This TECH Postgraduate Certificate in Food Safety Management and Certification in the Food Industry covers the most important concepts of hazard, risk and safety applied to the food industry, as well as the most commonly used methods to control them, including allergens. It addresses the principles of safety assurance management in the food production industry, using the HACCP plan as a model, its prerequisites, the stages for its implementation and the verification of its efficiency.

The program has been developed from a risk assessment approach in accordance with current trends in quality assurance management in general, and safety assurance management in particular.

It reviews the general principles of a certification process in an international context, covering aspects such as documentation management, electronic records, audits and other requirements for successful certification.

Due to the international nature of this Postgraduate Certificate, the most widely used models at a global level have been chosen, according to the relevance that these programs have gained in world trade. The background, structure and scope of ISO-22000 are reviewed, as it is part of an internationally recognized system (ISO) and can be adapted to become an FSSC-22000 model that is part of the global food safety system GFSI (Global Food Safety Initiative). In addition, the study of Good Practices certifications (GMP or manufacturing, primary production, etc.) has been included, since they are part of a certifiable management system.

Likewise, the case of ISO-17025 standard is addressed, since laboratory testing is a key element in decision-making for hazard control and risk assessment, including corrective actions.

This **Postgraduate Certificate in Food Safety Management and Certification in the Food Industry** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- » Case studies presented by experts in food safety in the area of nutrition
- » 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
- » News about Food Safety Management and Certification in the Food Industry
- » Practical exercises where self-assessment can be used to improve learning
- » Special emphasis on innovative methodologies in Food Safety Management and Certification in the Food Industry
- » 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



If you want to grow and consolidate your position in the food industry as an expert nutritionist, now is the time"

“

By analyzing the main types of hazards associated with food, you contribute to food safety in processing and preparation”

The teaching staff includes professionals who belong to the food industry, specialized in food safety management and certification in the food industry.

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 specialization 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 throughout the program. To that end, professionals will be assisted by a novel interactive video system developed by recognized and experienced experts in Food Safety Management and Certification in the Food Industry.

Thanks to this TECH Postgraduate Certificate you will know how to implement food safety management plans in any company in the sector.

The best program on Food Safety Management and Certification in the Food Industry adapted for Nutritionists in the sector.



02 Objectives

The Postgraduate Certificate in Food Safety Management and Certification in the Food Industry is aimed at guiding professionals in understanding the various certifications that currently guarantee food safety, alerting potential dangers that may appear if the process fails in any way. Aspects that a nutritionist must master for the proper performance of their daily functions. During this Postgraduate Certificate, professionals will address, therefore, the main interventions specialists conduct in the area of food safety, an issue of the utmost importance nowadays. That way, nutritionists will develop high competencies in this regard, with the certainty of carrying out the protocols as effectively and safely as possible, guaranteed by TECH.





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*This is the best option to delve into
the latest advances in food safety
from the point of view of nutrition”*



General Objectives

- » Fundamentals of the most important food safety concepts
- » Define the concept of risk and risk assessment
- » Apply these principles to the development of a safety management plan
- » Concretize the principles of the HACCP plan
- » Define the principles of a certification process
- » Develop the concept of best practice certification
- » Analyze the main international certification models for food safety management in the food industry





Specific Objectives

- » Analyze the main types of hazards associated with food
- » Evaluate and apply the principle of risk and risk analysis in food safety
- » Identify the prerequisites and previous steps for the implementation of a safety management plan
- » Establish the main hazards associated with food according to their physical, chemical or biological nature, and some of the methods used for their control
- » Apply these principles to the development of a safety management plan
- » Specify the methods to evaluate the efficiency of a critical point and of the safety management plan
- » Establish the general requirements for certification
- » Identify the different types of Good Practices (GxP) required in a food safety management system and certification
- » Develop the structure of the ISO and ISO 17025 international standards
- » Define the characteristics, structure and scope of the main global food safety certification systems

03

Course Management

The professors on this Postgraduate Certificate are highly qualified in the field of food safety management and certification in the food industry applied to nutritionists, making it a leading program in the sector. They have brought their knowledge and experience as well as the latest legislative updates in the field to provide nutritionists with a complete and up-to-date education. Legal specialists have also participated in the development of the curriculum to complete the program in an interdisciplinary way from a global perspective. All this under TECH's guarantee and our goal to train nutritionists for professional success.



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The professors on this Postgraduate Certificate have devoted an entire section to the 7 steps to implement the Hazard and Critical Control Point Plan (HACCP) like no other”

International Guest Director

Widely specialized in Food Safety, John Donaghy is a leading Microbiologist with an extensive professional experience of more than 20 years. His comprehensive knowledge on subjects such as foodborne pathogens, risk assessment and molecular diagnostics has led him to be part of international reference institutions such as Nestlé or the Department of Agriculture Scientific Services of Northern Ireland.

Among his main tasks, he has been in charge of operational aspects related to food safety microbiology, including hazard analysis and critical control points. He has also developed multiple prerequisite programs, as well as bacteriological specifications to ensure hygienic environments at the same time as safe for optimal food production.

His strong commitment to providing first class services has led him to combine his management work with scientific research. In this sense, he has an extensive academic production, consisting of more than 50 comprehensive articles on topics such as the impact of Big Data in the dynamic management of food safety risk, microbiological aspects of dairy ingredients, detection of ferulic acid esterase by *Bacillus subtilis*, extraction of pectin from citrus peels by polygalacturonase produced in serum or the production of proteolytic enzymes by *Lysobacter gummosus*.

On the other hand, he is a regular speaker at conferences and forums worldwide, where he discusses the most innovative molecular analysis methodologies to detect pathogens and the techniques for implementing systems of excellence in the manufacture of foodstuffs. In this way, he helps professionals stay at the forefront of these fields while driving significant advances in the understanding of Quality Control. In addition, it sponsors internal research and development projects to improve the microbiological safety of foods.



Dr. Donaghy, Jhon

- Global Head of Food Safety, Nestlé, Lausanne, Switzerland
- Project Leader in Food Safety Microbiology, Institute of Agri-Food and Biological Sciences, Northern Ireland
- Senior Scientific Advisor at the Department of Agriculture Scientific Services, Northern Ireland
- Consultant on various initiatives funded by the Food Safety Authority of the Government of Ireland and the European Union
- Doctorate in Science, Biochemistry, University of Ulster
- Member of the International Commission on Microbiological Specifications for Foods

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

Management



Dr. Limón Garduza, Rocío Ivonne

- ♦ PhD in Agricultural Chemistry and Bromatology (Autonomous University of Madrid)
- ♦ Master's Degree in Food Biotechnology (MBTA) (University of Oviedo)
- ♦ Food Engineer, Bachelor's Degree in Food Science, and Technology (CYTA)
- ♦ Expert in Food Quality Management ISO 22000
- ♦ Specialist in Food Quality and Safety, Mercamadrid Training Center (CFM)

Professors

Ms. Andrés Castillo, Alcira Rosa

- » Researcher. GenObIACM Project. Group UCM
- » IRYCIS R&C Institute for Health Research U. Endothelium and MCM
- » Coordinator E.C. with pharmaceuticals and foodstuffs
- » Data Manager for Clinical Trials with DM2 medication
- » Degree in Marketing. UADE
- » University Expert in Nutrition and Dietetics with CV Risk Factors and DM. UNED
- » Food Traceability Course. USAL Foundation



04

Structure and Content

The content on the program has been structured for nutritionists to delve into the field of food safety certifications in the food industry, and train in its management after the completion of the program. The curriculum has been developed by industry professionals who work in the field on a daily basis, and who have an excellent professional background and extensive experience in the sector. In this way they have unified their knowledge and structured two blocks of content. The first focuses on food safety management, including the types of hazards that can be encountered if not handled properly, and the 7 steps to implement the Hazard and Critical Control Point Plan (HACCP). The second module covers food safety certifications in the food industry that nutritionists must master to correctly perform their functions.





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This Postgraduate Certificate in Food Safety Management and Certification in the Food Industry has been specially designed for nutritionists to update their knowledge in this field”

Module 1. Food Safety Management

- 1.1. Food Safety Principles and Management
 - 1.1.1. The Concept of Danger
 - 1.1.2. The Concept of Risk
 - 1.1.3. Risk Evaluation
 - 1.1.4. Food Safety and Its Management Based on Risk Assessment
- 1.2. Physical Hazards
 - 1.2.1. Concepts and Considerations on Physical Hazards in Foods
 - 1.2.2. Physical Hazard Control Methods
- 1.3. Chemical Hazards
 - 1.3.1. Concepts and Considerations on Chemical Hazards in Foods
 - 1.3.2. Chemical Hazards Naturally Occurring in Food
 - 1.3.3. Hazards Associated with Chemicals Intentionally Added to Foods
 - 1.3.4. Incidentally or Unintentionally Added Chemical Hazards
 - 1.3.5. Chemical Hazard Control Methods
 - 1.3.6. Allergens in Food
 - 1.3.7. Allergen Control in the Food Industry
- 1.4. Biological Hazards
 - 1.4.1. Concepts and Considerations of Biological Hazards in Foods
 - 1.4.2. Microbial Hazards
 - 1.4.3. Non-Microbial Biological Hazards
 - 1.4.4. Biological Hazard Control Methods
- 1.5. Good Manufacturing Practices Program (GMP)
 - 1.5.1. Good Manufacturing Practices (GMP)
 - 1.5.2. Background on GMP
 - 1.5.3. Scope of GMPAI
 - 1.5.4. GMPs in a Safety Management System
- 1.6. Standard Operating Procedure for Sanitation (SSOP)
 - 1.6.1. Sanitary Systems in the Food Industry
 - 1.6.2. Scope of SSOPs
 - 1.6.3. Structure of a SSOP
 - 1.6.4. SSOPs in a Safety Management System
- 1.7. The Hazard Analysis and Critical Control Point (HACCP) Plan
 - 1.7.1. Hazard Analysis and Critical Control Points (HACCP)
 - 1.7.2. Background of HACCP
 - 1.7.3. HACCP Prerequisites
 - 1.7.4. The 5 Preliminary Steps to HACCP Implementation
- 1.8. The 7 Steps of Hazard and Critical Control Point (HACCP) Plan Implementation
 - 1.8.1. Risk Analysis
 - 1.8.2. Identification of Critical Control Points
 - 1.8.3. Establishment of Critical Limits
 - 1.8.4. Establishment of Monitoring Procedures
 - 1.8.5. Implementation of Corrective Actions
 - 1.8.6. Establishment of Verification Procedures
 - 1.8.7. Record Keeping and Documentation System
- 1.9. Evaluation of the Efficiency of the Hazard and Critical Control Point Plan (HACCP) System.
 - 1.9.1. Evaluation of the Efficiency of a CCP
 - 1.9.2. Overall Evaluation of the Efficiency of the HACCP Plan
 - 1.9.3. Use and Management of Records to Evaluate the Efficiency of the HACCP Plan
- 1.10. Hazard and Critical Control Point Plan (HACCP) System Variants Based on Risk Systems
 - 1.10.1. Vulnerability Assessment and Critical Control Points (VACCP) Plan
 - 1.10.2. Threat Assessment Critical Control Points (TACCP)
 - 1.10.3. Hazard Analysis and Risk-Based Preventive Controls (HARPC)

Module 2. Food Safety Certifications for the Food Industry

- 2.1. Principles of Certification
 - 2.1.1. The Certification Concept
 - 2.1.2. The Certifying Agencies
 - 2.1.3. General Outline of a Certification Process
 - 2.1.4. Management of a Certification and Re-certification Program
 - 2.1.5. Management System before and after Certification
- 2.2. Good Practice Certifications
 - 2.2.1. Good Manufacturing Practice (GMP) certification
 - 2.2.2. The Case of GMP for Food Supplements
 - 2.2.3. Good Practice Certification for Primary Production
 - 2.2.4. Other Good Practice Programs (GxP)
- 2.3. ISO 17025 Certification
 - 2.3.1. The ISO Standards Scheme
 - 2.3.2. ISO 17025 System Overview
 - 2.3.3. ISO 17025 Certification
 - 2.3.4. The Role of ISO 17025 Certification in Food Safety Management
- 2.4. ISO 22000 Certification
 - 2.4.1. Background
 - 2.4.2. Structure of the ISO 22000 Standard
 - 2.4.3. Scope of ISO 22000 Certification
- 2.5. GFSI Initiative and the Global GAP and Global Markets Program
 - 2.5.1. The GFSI (Global Food Safety Initiative) Global Food Safety System
 - 2.5.2. Global GAP Program Structure
 - 2.5.3. Scope of Global GAP Certification
 - 2.5.4. Structure of the Global Markets Program
 - 2.5.5. Scope of the Global Markets Program Certification
 - 2.5.6. Relation between Global GAP and Global Markets with Other Certifications
- 2.6. SQF Certification (Safe Quality Food)
 - 2.6.1. SQF Program Structure
 - 2.6.2. Scope of SQF Certification
 - 2.6.3. Relationship of SQF With Other Certifications
- 2.7. BRC Certification (British Retail Consortium)
 - 2.7.1. BRC Program Structure
 - 2.7.2. Scope of BRC Certification
 - 2.7.3. Relationship of BRC With Other Certifications
- 2.8. IFS Certification
 - 2.8.1. IFS Program Structure
 - 2.8.2. Scope of IFS Certification
 - 2.8.3. Relationship of IFS With Other Certifications
- 2.9. FSSC 22000 (Food Safety System Certification 22000)
 - 2.9.1. Background of the FSSC 22000 Program
 - 2.9.2. FSSC 22000 Program Structure
 - 2.9.3. Scope of FSSC 22000 Certification
- 2.10. Food Defence Programs
 - 2.10.1. The Concept of Food Defence
 - 2.10.2. Scope of a Food Defence Program
 - 2.10.3. Tools and Programs for Implementing a Food Defence Program

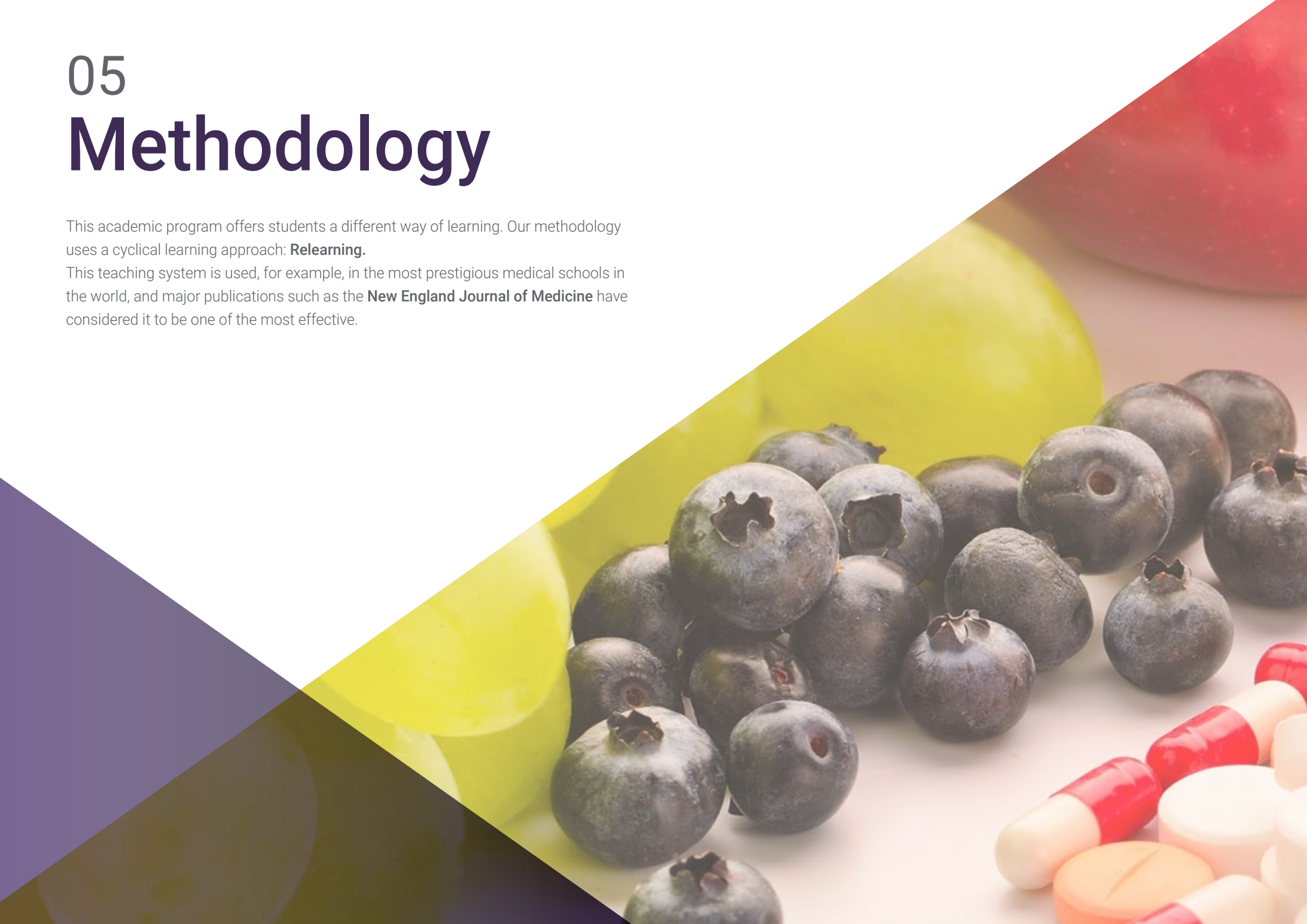


*This program will allow
you to advance in your
career in a seamless way*

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. 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 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

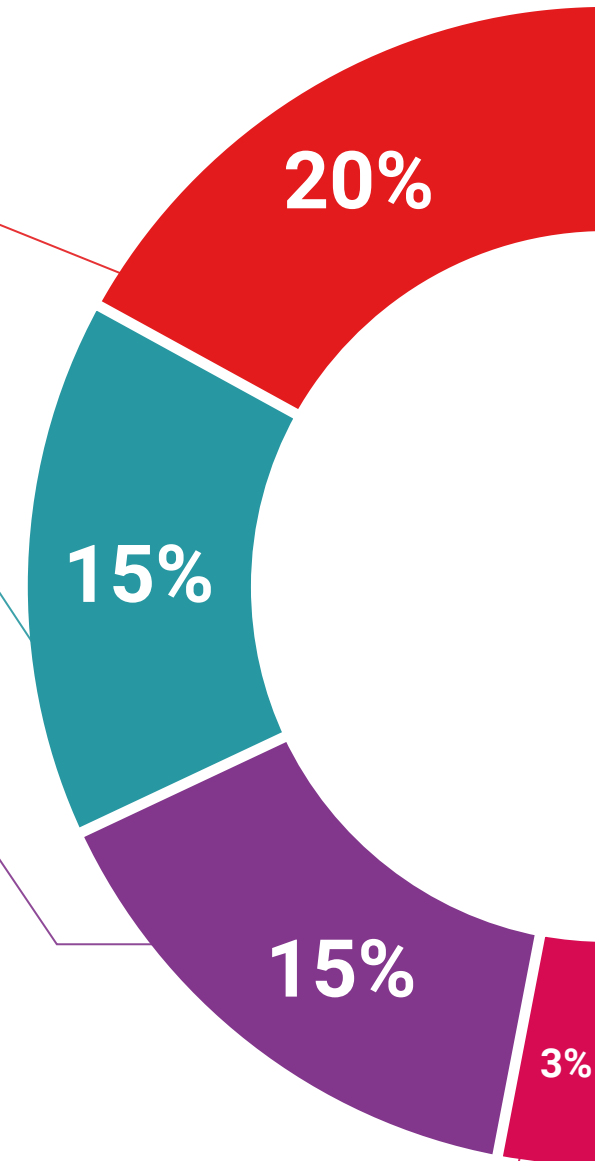
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

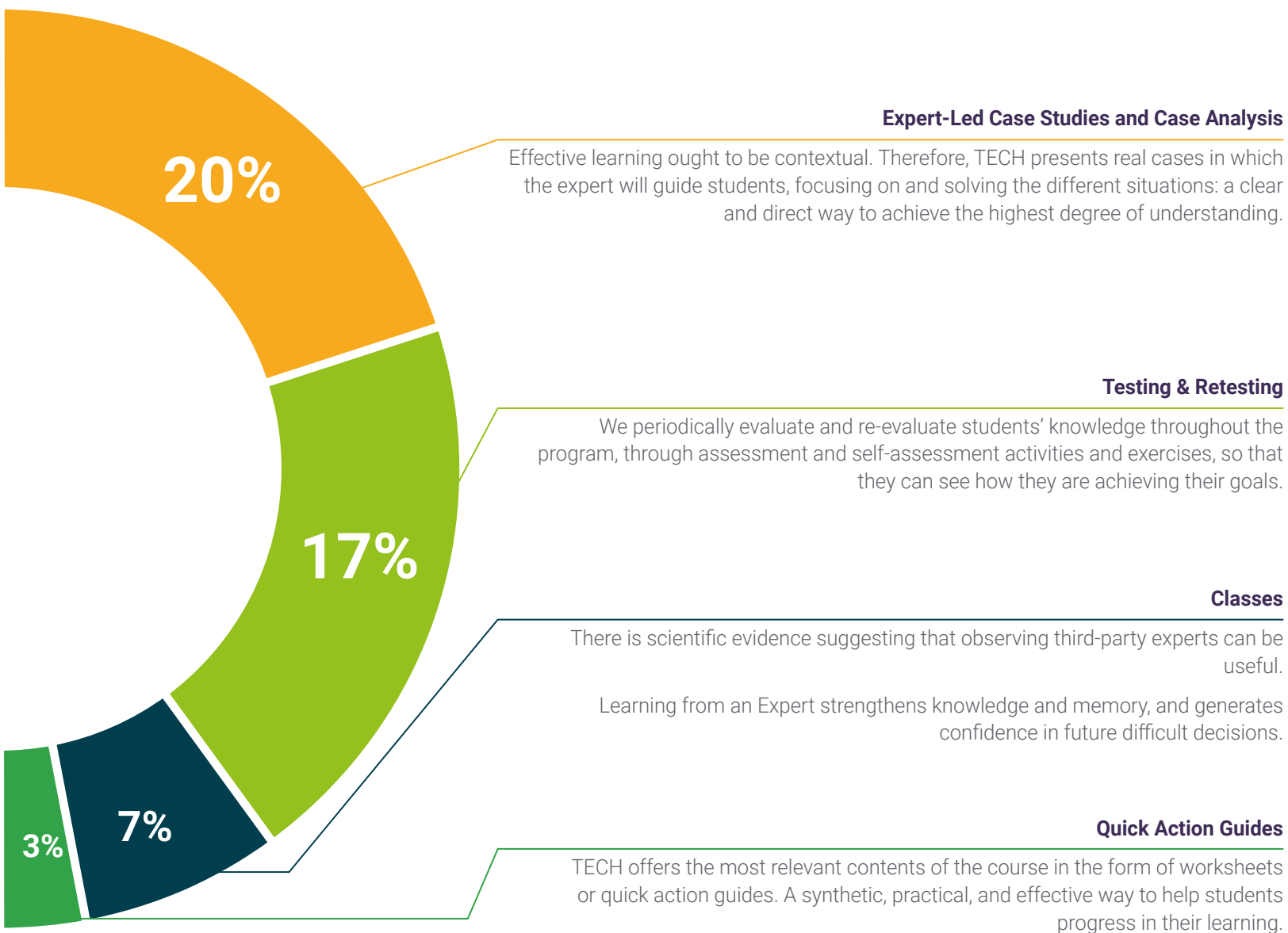
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





06 Certificate

The Postgraduate Certificate in Food Safety Management and Certification in the Food Industry guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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 Certificate in Food Safety Management and Certification in the Food Industry** 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 Certificate in Food Safety Management and Certification in the Food Industry**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**





Postgraduate Certificate

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Postgraduate Certificate

Food Safety Management and Certification in the Food Industry

