# Postgraduate Certificate
## Analysis and Control of Food Quality

**tech** global university

## Postgraduate Certificate
### Analysis and Control of Food Quality

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

Website: **www.techtitute.com/us/nutrition/postgraduate-certificate/analysis-control-food-quality**

# Index

# 01
# Introduction

In an effort to improve production chains and guarantee the proper application of processes that help to solve risk factors, it has become a necessity to have specialists in food analysis and control. In this way, a more comprehensive safety procedure can be ensured and public health can be avoided through the joint monitoring of state regulations for this sector. With this in mind, TECH has developed a program focused on training professionals in this area through a complete curriculum on Food Quality. All this, 100% online, a benefit that will allow students to have more control over their time.

*A Postgraduate Certificate program for those professionals who wish to go beyond their limits and specialize in Analysis and Control of Food Quality"*

This Postgraduate Certificate in Analysis and Control of Food Quality is a unique educational opportunity for those professionals who wish to acquire specialized knowledge in this field. This is because the focus of the syllabus covers topics of vital importance, providing the student with the essential concepts on risk assessment and proper treatment of food.

From a solid introduction on the aspects that must be taken into account to ensure an efficient quality control process, the student will learn about safety standards and the attributes of each type of product, with the objective of carrying out risk assessments and promoting strategies to solve them. In addition, participants will receive an update on the statistical methods used in this procedure, as well as the traceability chain for greater control over the process.

In this way, students will broaden their technical and practical knowledge about risk factors and their mitigation through Analysis and Control, which will strengthen their professional skills and they will have a better command of them to apply them immediately in the food industry.

All this, thanks to the innovative Relearning methodology, which allows students to study from home and have greater time flexibility, since they will have access 24 hours a day to the multimedia resources they will find in the online campus. In addition, you will be able to strengthen your competencies and increase your ability to solve problems, since you will analyze practical cases that will place you in a real scenario.

This **Postgraduate Certificate in Analysis and Control of Food Quality** 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 Analysis and Control of Food Quality
- 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 assignments
- Content that is accessible from any fixed or portable device with an Internet connection

*Take advantage of this opportunity and train at the world's largest online university"*

*"Access to the best job offers in the food industry and increase your economic and increase your economic expectations, thanks to this degree"*

*Learn at your own pace and without the need to submit to rigid study schedules.*

*Deepen your understanding of risk assessment concepts and master them to perfection for application in a real-world environment.*

The program's teaching staff includes professionals from 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 academic program is to provide students with a broad knowledge of the elements that must be taken into account when applying analysis and control processes in order to guarantee food quality. In this way, the student will enhance their skills in the evaluation of risk factors and to avoid product of risk factors and to avoid product damage, through the study of multimedia resources.

> *100% online, you will master the control processes of meats and their derivatives, through the recognition of the risk factors of this type of products"*

## General Objectives

- Acquire basic knowledge of epidemiology and prophylaxis
- To know and distinguish the physicochemical parameters that affect microbial growth in foods
- Identify the differential nature of acellular organisms (viruses, viroids and prions) in terms of their structure and mode of replication, with respect to eukaryotic and prokaryotic cell models

*TECH will help you achieve your goals by providing you with the best multimedia resources and training you to become a specialist in Food Analysis and Control"*

## Specific Objectives

◆ Recognize food components and their physicochemical, nutritional, functional and sensory properties

◆ Acquire and apply skills and abilities in food analysis during professional practice.

◆ Develop and implement quality control and traceability mechanisms in the food chain

◆ Design and develop experimental tests to evaluate food and food processes

◆ To know and understand the bases and principles of the methods used for quality control and food authenticity

# 03
# Structure and Content

The curriculum of this Postgraduate Certificate has been developed by leading experts in the field of Food Quality. In this way, the student will be able to broaden his or her knowledge of the procedures that must be carried out to ensure excellent food handling when counteracting risks. This will be based on study materials that include multimedia resources and the analysis of practical cases, which will allow students to improve their professional skills in this area.

> *Strengthen your valuable skills in food analysis and quality control through the analytical techniques you will learn in this program"*

## Module 1. Analysis and Quality Control

1.1.    Introduction to and Control Food Analysis
    1.1.1.    Food Hygiene Concept of Quality and their evaluation
    1.1.2.    Main food quality attributes
    1.1.3.    Quality Standards
    1.1.4.    Abnormalities of food Quality
        1.1.4.1. Physical alterations
        1.1.4.2. Chemical alterations
        1.1.4.3. Biological alterations
    1.1.5.    Fraud and adulteration
1.2.    Food quality control techniques I
    1.2.1.    Food quality control. Concept. Traceability in quality control
    1.2.2.    Management, control and quality assurance systems
    1.2.3.    Statistical Methods Applied to Quality Control
    1.2.4.    Acceptance control at reception. Statistical Process Control
1.3.    Quality control techniques II
    1.3.1.    Quality control charts by variables and attributes
    1.3.2.    Quality assurance of the final product
    1.3.3.    Bases and principles of methods used for quality control and food authenticity
    1.3.4.    Molecular biology and immunological techniques
    1.3.5.    Compositional analysis. Sensory analysis of food
1.4.    Compositional analysis
    1.4.1.    Water content of food. Importance of water in food
        1.4.1.1. Analytical methods for the determination of water content
        1.4.1.2. Concept of water activity and its importance in foodstuffs
        1.4.1.3. Analytical methods for water activity determination
    1.4.2.    Carbohydrate content of foods. Carbohydrates in food
        1.4.2.1. Importance of the carbohydrates in foods
        1.4.2.2. Analytical methods for carbohydrate determination

*Continue advancing in your professional career and start this Postgraduate Certificate program specially prepared for you"*

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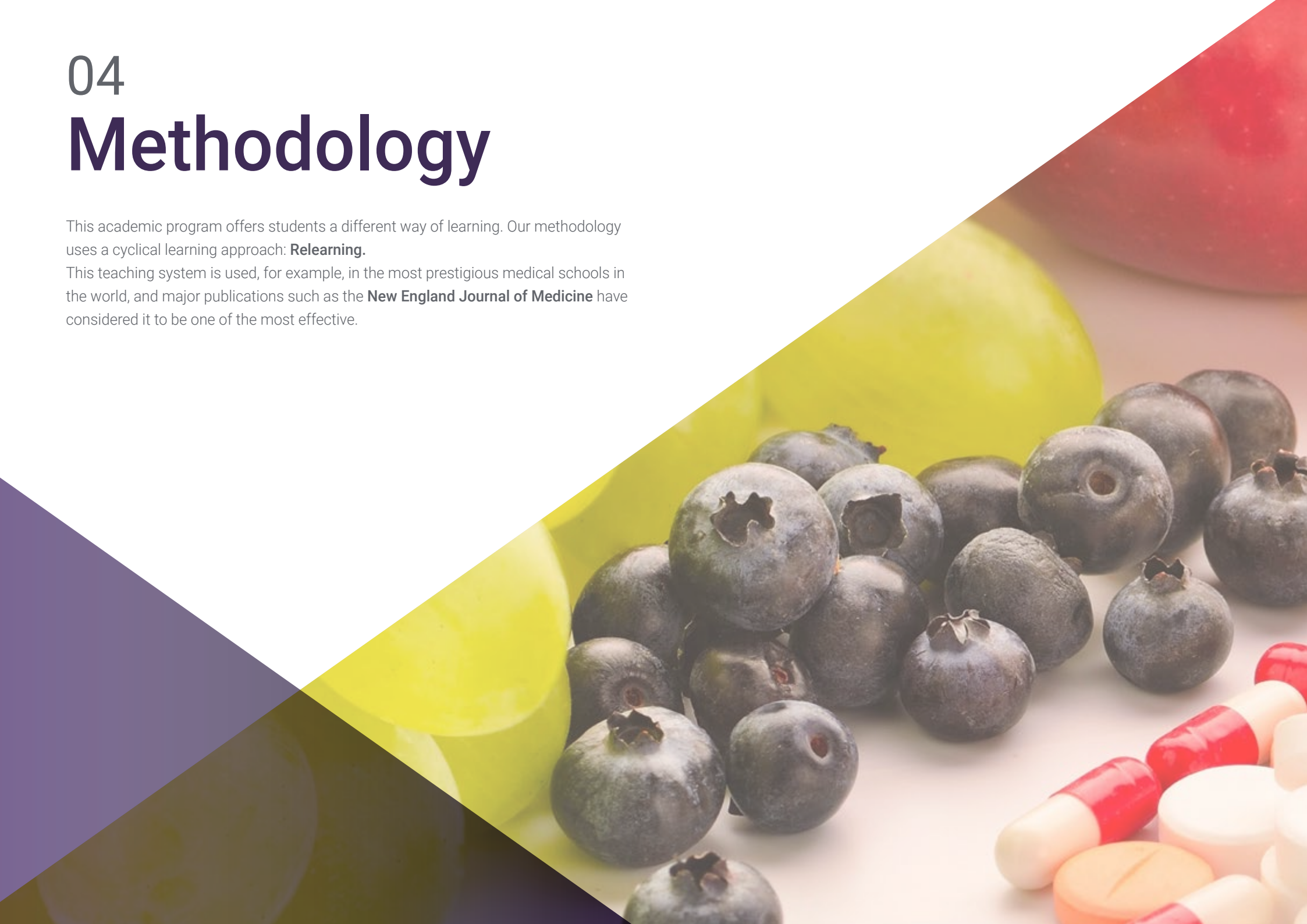
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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:**

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.*



01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

**20%**

**15%**

**15%**

**3%**

**20%**

**17%**

**7%**

**3%**
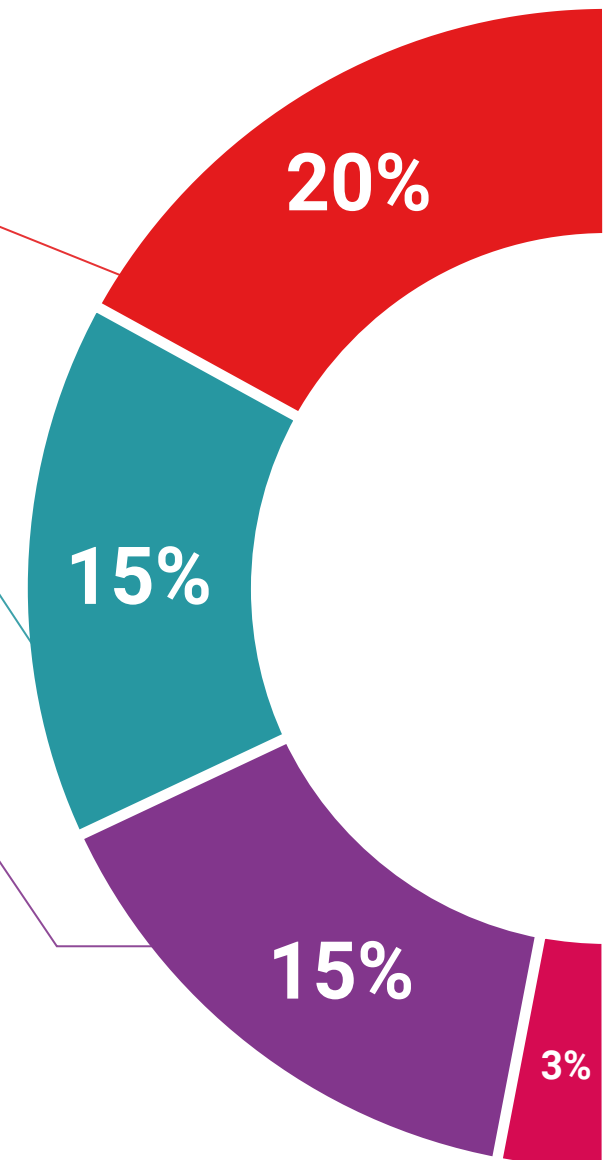
### Expert-Led Case Studies and Case Analysis

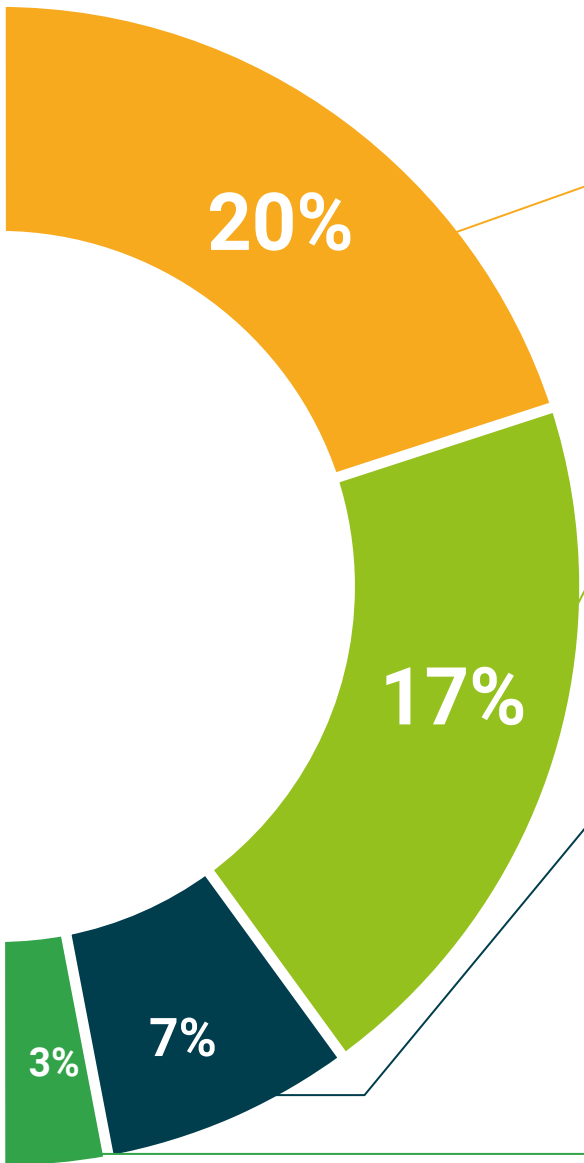Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

### 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.

# Certificate

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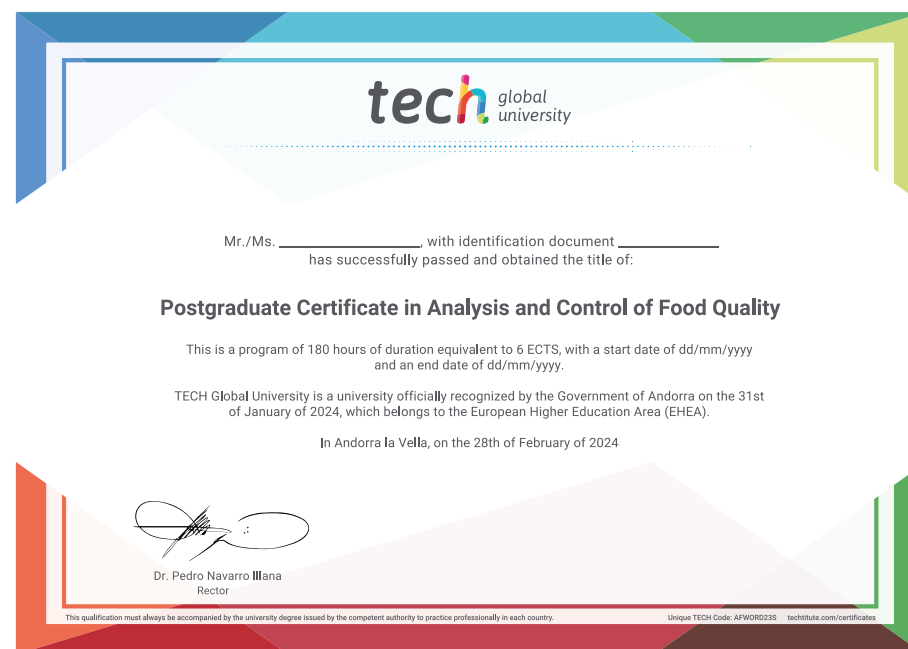
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Analysis and Control of Food Quality**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

tech global university

Mr./Ms. _____, with identification document _____ has successfully passed and obtained the title of:

**Postgraduate Certificate in Analysis and Control of Food Quality**

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.     Unique TECH Code: AFWORD23S     techtitute.com/certificates

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

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