Postgraduate Certificate
Process Validation in the Agri-Food Industry

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Postgraduate Certificate

Process Validation in the Agri-Food Industry

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

Website: www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/process-validation-agri-food-industry

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01

Introduction

The validation of projects in the agri-food industry is essential for controlling the quality of plant-based products that we consume. Therefore, it is necessary to obtain specialized training in this field. Take advantage of the opportunity and acquire solid knowledge in this field that will allow you to become a successful professional.

This program is the best option you will find to specialize in Process Validation in the Agri-Food Industry and update your knowledge"

The Postgraduate Certificate in Process Validation in the Agri-Food Industry at TECH Global University is the most comprehensive available among universities today, as it is focused on the integrated management of food safety for plant-based products.

This course develops the most important concepts of hazard, risk, and food safety applied to the food industry, as well as the most widely used methods for controlling these hazards, including allergens. It addresses the principles of food safety assurance management in the food production industry, using the HACCP plan as a model, its prerequisite requirements, the stages for its implementation, and the verification of its efficiency.

The program has been created from a risk assessment perspective, aligned with current trends in quality and food safety assurance management. From this perspective, the most current trends derived from this program are reviewed, such as HARCP, along with the fundamental aspects that confirm the effectiveness of critical control points in ensuring the safety of produced food, with a clear understanding of the necessity and proper formulation of critical control points.

On the other hand, the necessary tools for validating the implemented controls are presented, verifying their effectiveness, and ensuring the confidence to implement robust control processes within the food safety management system.

Additionally, the program includes participation from a renowned International Guest Director, who will deliver a high-intensity Masterclass that will contribute to graduates acquiring advanced skills to identify, assess, and manage risks associated with both food production and distribution. In this way, nutritionists will be able to develop innovative contingency plans to manage food safety crises.

This **Postgraduate Certificate in Process Validation in the Agri-Food Industry** contains the most comprehensive and up-to-date educational program on the market. The most important features of the program include:

- The development of case studies presented by experts in veterinary food safety
- 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
- The latest developments in process validation in the Agri-Food Industry
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Process Validation in the Agri-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

A prestigious International Guest Director will deliver a rigorous Masterclass to delve into the latest advancements in Incident and Deviation Management"

This course is the best investment you can make in selecting an update program to refresh your knowledge in Process Validation in the Agri-Food Industry"

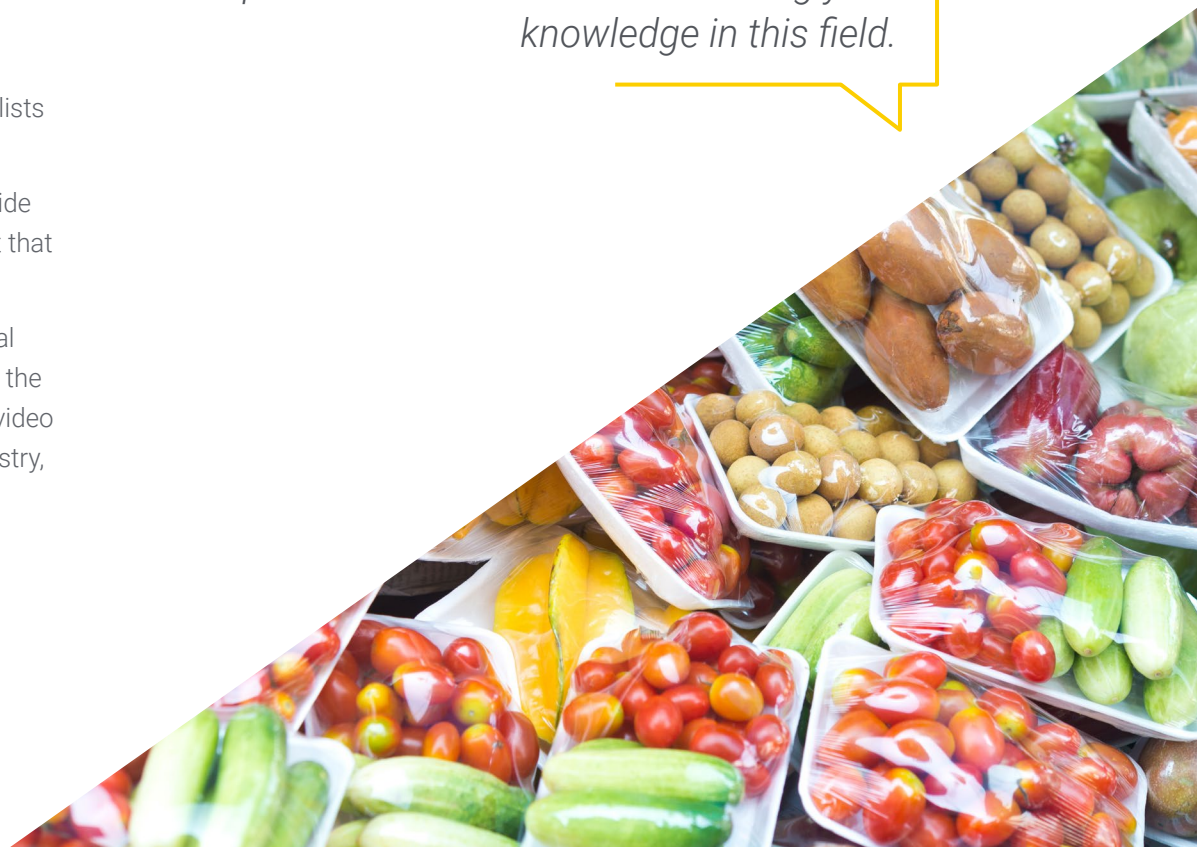
This program comes with the best teaching material, providing you with a contextual approach that will facilitate your learning.

This 100% online course will allow you to combine your studies with your professional work while increasing your knowledge in this field.

The faculty includes professionals from the field of veterinary food safety, who contribute their professional experience to this training, as well as renowned specialists from leading societies and prestigious universities.

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 education 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 this end, the professional will have access to an innovative interactive video system created by renowned experts in process validation within the agri-food industry, who have extensive experience in the field.



02
Objectives

The Postgraduate Certificate in Process Validation in the Agri-Food Industry is designed to enable professionals to act with the latest and most innovative advancements in the industry.

This program will allow you to update and stay current with the latest developments in this field"

General Objectives

- Establish the most important concepts of food safety
- Define the concept of risk and risk assessment
- Apply these principles to develop a food safety management plan
- Specify the principles of the HACCP plan
- Identify critical control points
- Provide tools for the validation of CCPs
- Analyze the concepts of Monitoring, Verification, and Validation of processes
- Improve incident management, claims, and internal audits

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 develop a food safety management plan
- Specify the methods to evaluate the efficiency of a critical point and of the safety management plan.
- Know the main differences between control points and critical control points
- Develop prerequisite programs and management charts to ensure food safety
- Apply internal audits, complaints or internal incidents as tools for the validation of control processes
- Review process validation methods
- Differentiate and specify the differences between monitoring, verification and validation activities within the HACCP system
- Demonstrate resolution capability with root cause analysis and implementation of corrective actions for complaint or nonconformity management
- Assess the management of internal audits as a tool for improving the HACCP plan

A pathway for training and professional growth that will drive you toward greater competitiveness in the job market"

03
Course Management

The program includes experts in Veterinary Food Safety, who bring their professional experience into this program. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.

Our faculty, experts in Food Safety, will help you achieve success"

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** and 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 polygalaturonase 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, he **sponsors internal research** and development projects to improve the microbiological safety of foods.

Dr. Donaghy, John

- 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, specialization in Biochemistry, University of Ulster
- Member of the International Commission on Microbiological Specifications for Foods

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

Management

Dr. Limón Garduza, Rocío Ivonne

- Quality Inspector and Bromatological Expertise at Just Quality System SL.
- Lecturer in Food Safety at Training Center Mercamadrid
- Responsible for Quality Management and Project Development at KMC
- Head of the Quality Control Department at Frutas Garralón import, export SA in Mercamadrid
- PhD in Agricultural Chemistry and Bromatology, Autonomous University of Madrid
- Degree in Food Science and Technology from the Autonomous University of Puebla, Mexico.
- Master's Degree in Food Biotechnology (MBTA) from the University of Oviedo.

Faculty

Ms. Aranda Rodrigo, Eloísa

- Food Quality and Safety. Global Nutralabs
- Author and Consultant in Business Initiatives
- Production Laboratory Manager TONG IL S.L.
- Laboratory Manager, José María Villasante SL
- Degree in Food Science and Technology. University of Castilla – La Mancha
- It develops its activity in the food production environment, with laboratory analysis of water and food
- Training in Quality Management Systems, BRC, IFS and ISO 22000 Food Safety
- Experience in audits under ISO 9001 and ISO 17025 protocols

04
Structure and Content

The content structure has been designed by the best professionals in the sector, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied and diagnosed, and with extensive knowledge of new technologies applied to food safety.

This Postgraduate Postgraduate Certificate in Process Validation in the Agri-Food Industry contains the most complete and up-to-date scientific program on the market"

Module 1. Food Safety Management

1.1. Food Safety Principles and Management
- 1.1.1. The Concept of Hazard
- 1.1.2. The Concept of Risk
- 1.1.3. Risk Assessment
- 1.1.4. Food Safety and Its Management Based on Risk Assessment

1.2. Physical Hazards
- 1.2.1. Concepts and Considerations of Physical Hazards in Food
- 1.2.2. Methods for Controlling Physical Hazards

1.3. Chemical Hazards
- 1.3.1. Concepts and Considerations of Chemical Hazards in Food
- 1.3.2. Naturally Occurring Chemical Hazards in Food
- 1.3.3. Hazards Associated with Chemicals Intentionally Added to Food
- 1.3.4. Chemicals Added Incidentally or Unintentionally
- 1.3.5. Methods for Controlling Chemical Hazards
- 1.3.6. Allergens in Food
- 1.3.7. Control of Allergens in the Food Industry

1.4. Biological Hazards
- 1.4.1. Concepts and Considerations of Biological Hazards in Food
- 1.4.2. Microbial Hazards
- 1.4.3. Non-Microbial Biological Hazards
- 1.4.4. Methods for Controlling Biological Hazards

1.5. Good Manufacturing Practices (GMP) Program
- 1.5.1. Good Manufacturing Practices (GMP)
- 1.5.2. Background on GMP
- 1.5.3. Scope of GMP
- 1.5.4. GMP in a Food Safety Management System

1.6. Sanitation Standard Operating Procedure (SSOP)
- 1.6.1. Sanitary Systems in the Food Industry
- 1.6.2. Scope of SSOP
- 1.6.3. Structure of an SSOP
- 1.6.4. SSOP in a Food Safety Management System

1.7. Hazard Analysis and Critical Control Points (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 Implementing the Hazard Analysis and Critical Control Points (HACCP) Plan
- 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
  Establishment of Verification Procedures
- 1.8.7. Recordkeeping and Documentation

1.9. Evaluation of the Effectiveness of the Hazard Analysis and Critical Control Points (HACCP) System
- 1.9.1. Evaluation of Critical Control Point (CCP) Effectiveness
- 1.9.2. General Evaluation of HACCP Plan Effectiveness
- 1.9.3. Use and Management of Records to Evaluate HACCP Plan Effectiveness

1.10. Variants of the Hazard Analysis and Critical Control Points (HACCP) System Based on Risk Systems
- 1.10.1. VACCP or Vulnerability Assessment Critical Control Points
- 1.10.2. TACCP or Threat Assessment Critical Control Points
- 1.10.3. HARPC or Hazard Analysis & Risk-Based Preventive Controls

Module 2. Validation of New Methodologies and Processes

2.1. Critical Control Points
- 2.1.1. Significant Hazards
- 2.1.2. Prerequisite Programs
- 2.1.3. Critical Control Point Management Chart

2.2. Verification of a Self-Control System
- 2.2.1. Internal Audits
- 2.2.2. Review of Historical Records and Trends
- 2.2.3. Customer Complaints
- 2.2.4. Detection of Internal Incidents

2.3. Monitoring, Validation and Verification of Control Points
- 2.3.1. Surveillance or Monitoring Techniques
- 2.3.2. Validation of Controls
- 2.3.3. Efficiency Verification

2.4. Validation of Processes and Methods
- 2.4.1. Documentary Support
- 2.4.2. Validation of Analytical Techniques
- 2.4.3. Validation Sampling Plan
- 2.4.4. Method Bias and Accuracy
- 2.4.5. Determining Uncertainty

2.5. Validation Methods
- 2.5.1. Method Validation Stages
- 2.5.2. Types of Validation Processes, Approaches
- 2.5.3. Validation Reports, Summary of Data Obtained

2.6. Incident and Deviation Management
- 2.6.1. Formation of the Work Team
- 2.6.2. Description of the Problem
- 2.6.3. Root Cause Determination
- 2.6.4. Corrective and Preventive Actions
- 2.6.5. Efficiency Verification

This specialization will allow you to advance in your career comfortably"

05

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

> *TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"*

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

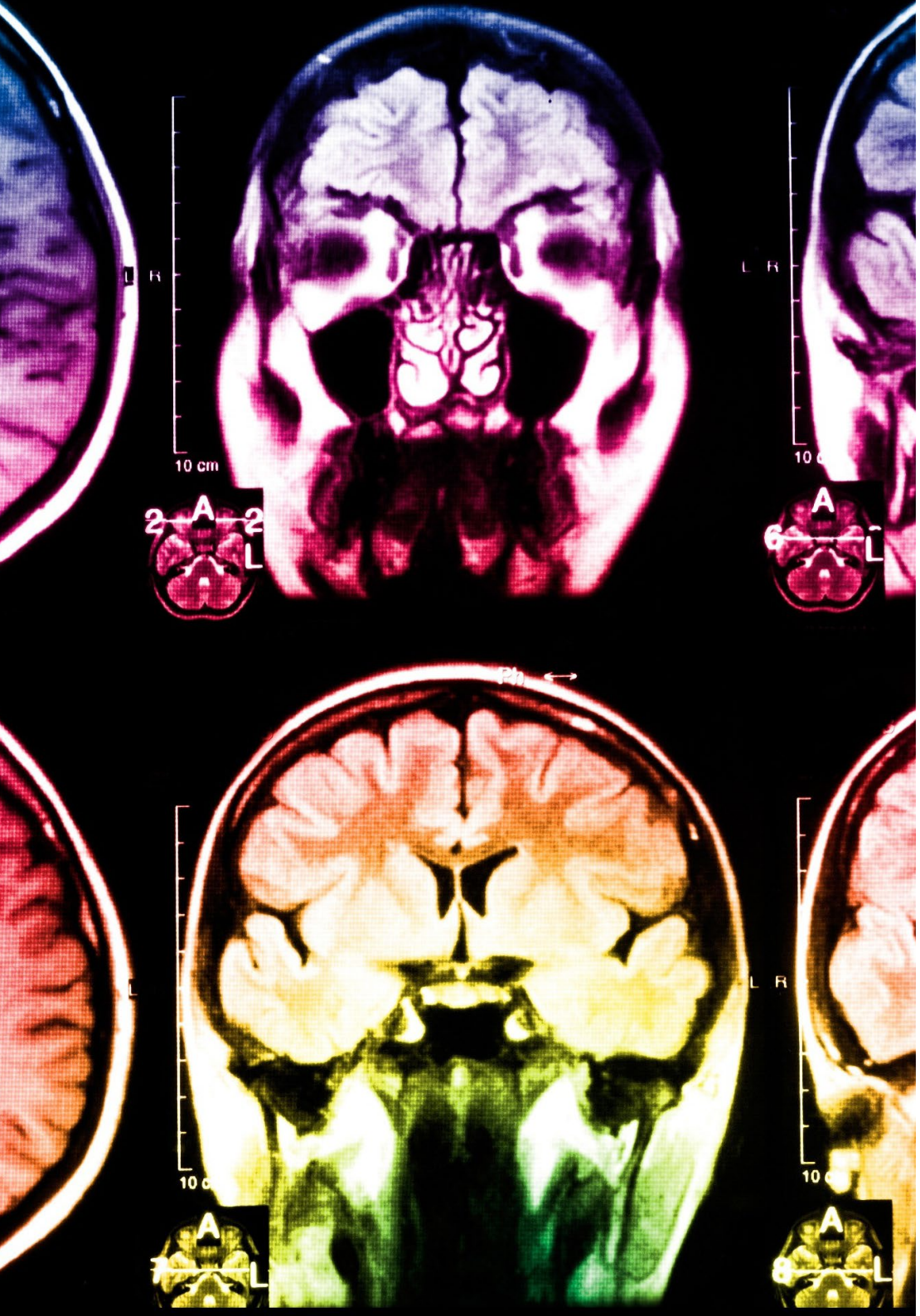
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

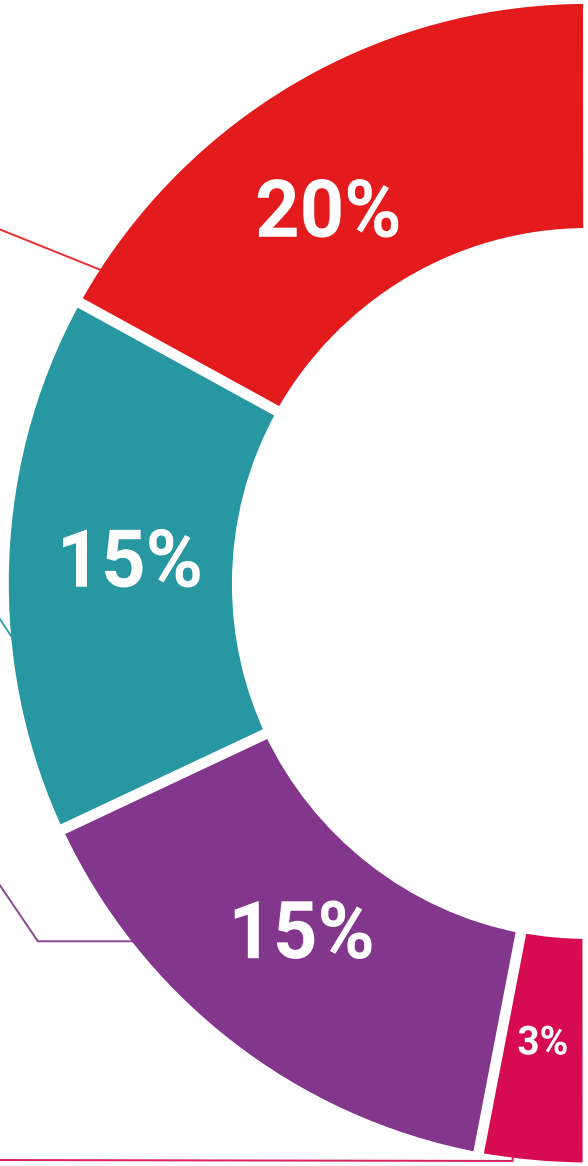
Interactive Summaries

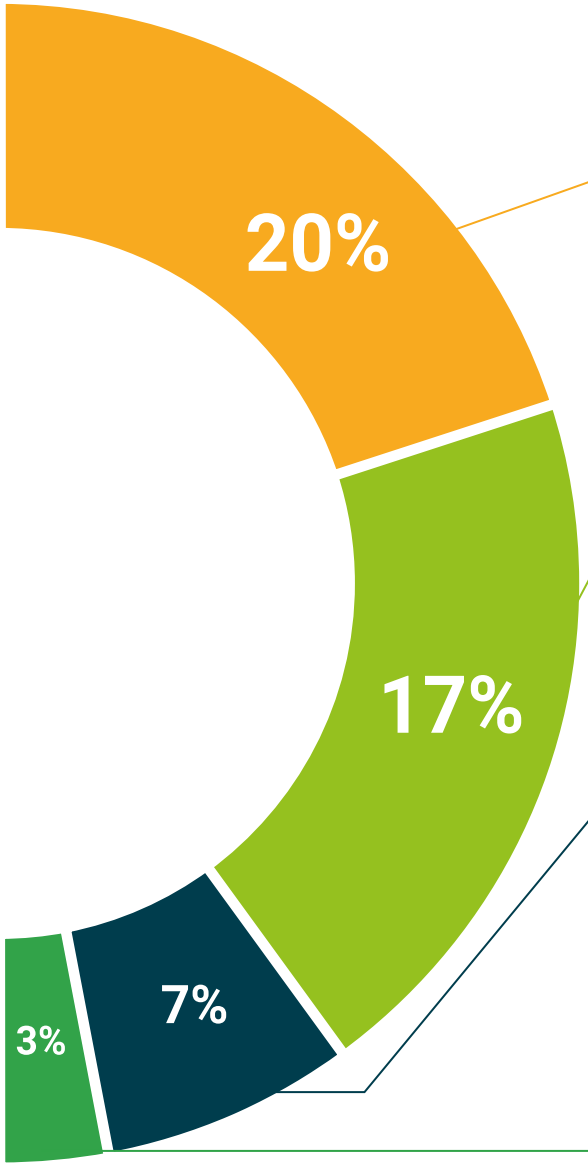
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

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 for 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.

07

Certificate

The Postgraduate Certificate in Process Validation in the Agri-Food Industry guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Certificate issued by TECH Global University.

Include in your resume a Postgraduate Certificate in Process Validation in the Agri-Food Industry: a valuable addition of high qualification for any professional in this field"

This private qualification will allow you to obtain a **Postgraduate Certificate in Process Validation in the Agri-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** private qualification 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 Process Validation in the Agri-Food Industry**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**


tech global university

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

Postgraduate Certificate in Process Validation in the Agri-Food Industry

This is a private qualification of 360 hours of duration equivalent to 12 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
Dean

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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