

# Hybrid Professional Master's Degree Veterinary Food Safety





## Hybrid Professional Master's Degree Veterinary Food Safety

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

Website: [www.techtute.com/pk/veterinary-medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-veterinary-food-safety](http://www.techtute.com/pk/veterinary-medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-veterinary-food-safety)

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# 01

# Introduction

In an era of globalized food consumption, traceability and transparency are essential processes to detect and address any kind of crisis due to product contamination or low conservation standards. In this context, there is a high demand for specialized veterinarians in the food industry, but they face serious difficulties to update their knowledge in a holistic way. That is why TECH presents this disruptive program, where students will delve into crucial aspects to prevent zoonotic diseases and comply with strict regulations. In addition, this academic itinerary has an avant-garde teaching modality, which integrates 1,500 hours of theoretical learning with 3 weeks of practical stay in a center of maximum prestige.



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*In this Hybrid Professional Master's Degree you will deal with real cases and problems that occur in the field of Veterinary Food Safety, to perfect your theoretical and practical skills"*

Veterinary Food Safety is a critical area in animal food production. The constant threat of food contamination and disease outbreaks represents significant risks that affect both public health and the reputation of the industry. In this context, the need for specialized professionals becomes essential. This program will provide students with the necessary tools and knowledge, avoiding negative consequences for public health and maintaining the integrity of the food industry. In addition, the hands-on material included in the program will enable professionals to identify, prevent, prevent and effectively manage the risks associated with the food industry.

Throughout the curriculum of this Hybrid Professional Master's Degree, key aspects will be addressed, reinforcing the capacity of professionals in food safety management. The analysis of fundamentals, requirements, regulations and traceability tools in the food chain will be essential to ensure the quality and safety of products.

Likewise, specialization in commercial platforms and IT tools will strengthen efficiency in process management. In addition, the formulation of processes to identify and ensure the safety of raw materials, processed foods and water quality will emphasize the importance of accountability in the production of safe food products.

The methodology is distinguished by a theoretical-practical approach divided into two stages. During the first stage, which will be conducted in a 100% online format, participants will have access to the theoretical contents. Based on the Relearning method, the system will be focused on the repetition of key concepts to consolidate knowledge.

In the second phase, the professional will continue their exhaustive update with a 3-week face-to-face and practical stay, during which they will test all the knowledge acquired. To this end, they will be under the personalized guidance of a tutor and specialists of the highest prestige.

This **Hybrid Professional Master's Degree in Veterinary Food Safety** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Development of more than 100 case studies presented by professionals in the field of veterinary food safety and teachers with extensive experience in the sector
- ◆ Their graphic, schematic and practical contents provide essential information on those disciplines that are indispensable for professional practice
- ◆ Develop the relevant methodology for product conformity, taking into account the applicable requirements considered by the regulations and standards, to identify and define the responsibility of the different members of the food chain in terms of traceability, to specify the methods to evaluate the efficiency of a critical point and of the safety management plan, etc
- ◆ Comprehensive systematized action plans for food safety crises
- ◆ Analysis of the R&D&I system and the use of tools for planning, management, evaluation, protection of results and dissemination of food R&D&I
- ◆ Interactive learning system based on algorithms for decision making on the food safety situations posed
- ◆ Practical guides on traceability control of food of animal origin
- ◆ With a special emphasis on the development of the basics of good hygiene and traceability practices in the production of raw materials
- ◆ All of this will be complemented by 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
- ◆ Furthermore, you will be able to carry out a internship in one of the best companies



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*You will acquire skills through real cases and by solving complex situations in simulated learning environments”*

In this proposal for a Hybrid Professional Master's Degree, of a professionalizing nature and blended learning modality, the program is aimed at updating veterinary professionals who carry out their functions in the food industry sector, who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge into veterinary practice, and the theoretical-practical elements will facilitate the updating of knowledge and allow decision making to improve the safety of the food chain.

Thanks to multimedia content developed with the latest educational technology, professionals will enjoy a situated and contextual learning, i.e., a simulated environment that will provide immersive learning programmed to prepare professionals for real situations. This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*This Hybrid Professional Master's Degree allows you to expand your skills in simulated environments, which provide immersive learning programmed to specialize in real situations.*

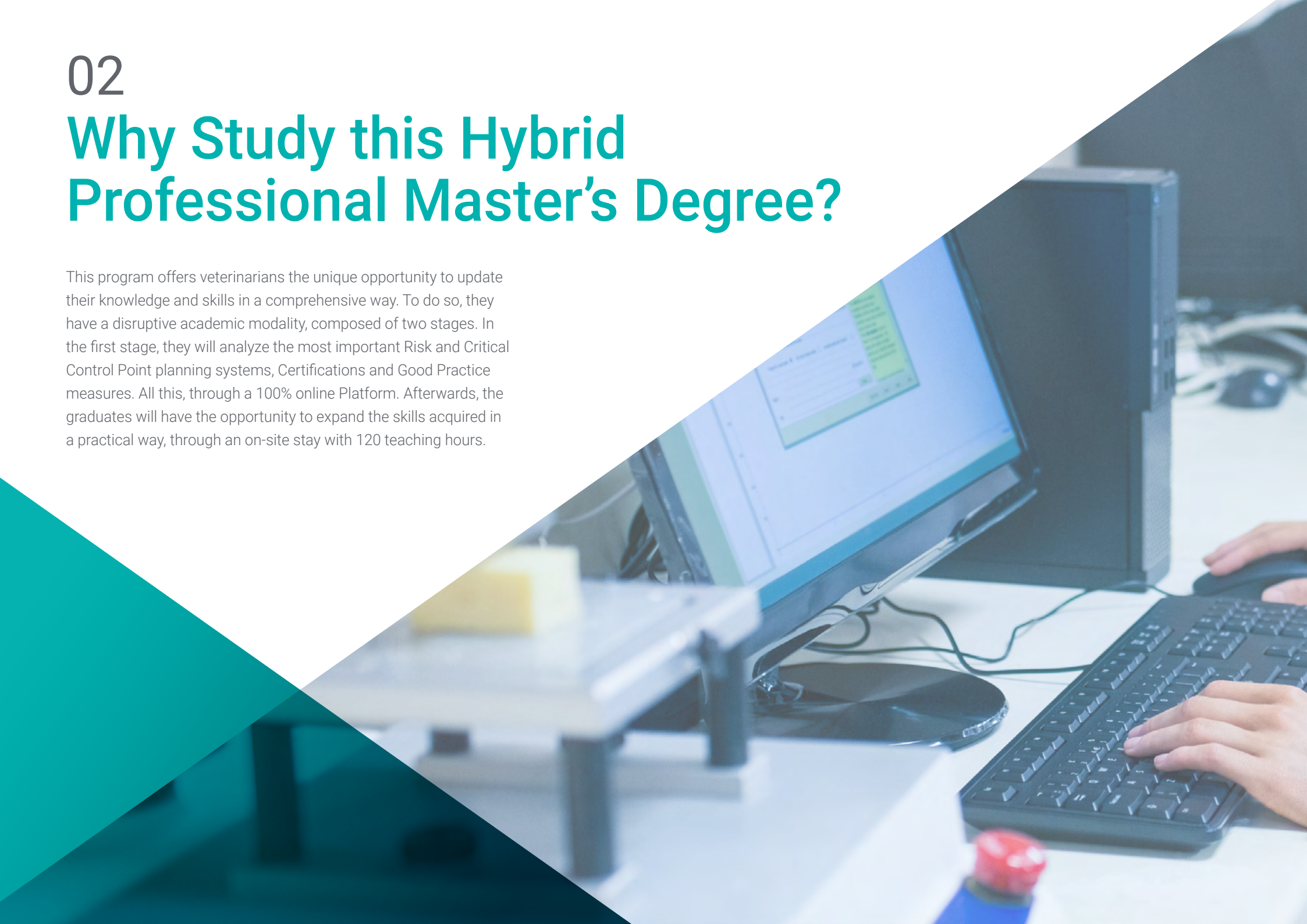
*Get up to date through the Hybrid Professional Master's Degree in Veterinary Food Safety, in a practical way and adapted to your needs.*



# 02

## Why Study this Hybrid Professional Master's Degree?

This program offers veterinarians the unique opportunity to update their knowledge and skills in a comprehensive way. To do so, they have a disruptive academic modality, composed of two stages. In the first stage, they will analyze the most important Risk and Critical Control Point planning systems, Certifications and Good Practice measures. All this, through a 100% online Platform. Afterwards, the graduates will have the opportunity to expand the skills acquired in a practical way, through an on-site stay with 120 teaching hours.





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*You will develop your skills from the comfort of your home and update your knowledge online with TECH”*

### 1. Updating from the Latest Technology Available

The field of Veterinary Food Safety has undergone a constant evolution, incorporating more complex monitoring systems, as well as contaminant detection and the use of innovative technologies in the traceability of food products. With the goal of updating the professional in these advances, TECH is committed to this cutting-edge university degree.

### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

The outstanding team of professionals that will guide the participant throughout the practical program represents a solid guarantee of excellence and an unparalleled opportunity for updating. With a specifically designated tutor, participants will be able to observe and participate in real-life situations in an industry-leading environment, allowing them to incorporate the most effective approaches and procedures in Veterinary Food Safety into their daily practice.

### 3. Entering first-class Communication Management environments

TECH makes a meticulous selection of the centers for the Internship Program, ensuring that the professional has access to a prestigious clinical environment in the field of Veterinary Food Safety. This provides the opportunity to experience the daily routine of a demanding and rigorous work environment, always applying the latest research and scientific fundamentals in the work methodology.







#### 4. Combining the Best Theory with State-of-the-Art Practice

The academic environment often presents educational programs that do not fully meet the daily demands of professionals, requiring extensive teaching loads that are difficult to reconcile with personal and work responsibilities. TECH introduces an innovative learning model, completely practical, that facilitates the acquisition of skills in state-of-the-art procedures in the field of Veterinary Food Safety. The highlight is the possibility to apply this knowledge in the professional practice in a short period of time of only 3 weeks.

#### 5. Expanding the Boundaries of Knowledge

TECH offers the opportunity to take this Hybrid Professional Master's Degree in leading centers. In this way, the Veterinary Food Safety professional can be updated with the best experts, who work in leading facilities. An exclusive opportunity that only TECH, the largest digital university in the world can offer to enrich learning in this crucial field.



*You will have full practical immersion at the center of your choice"*



# 03 Objectives

The main objective of this university program is to keep graduates up to date in the development of the essential basics of good hygiene and traceability practices in the production of raw materials. Through a unique combination of theoretical and practical learning, the degree seeks to enhance the skills and knowledge of professionals in the field of food safety. With a direct and practical approach, it aims to provide participants with the necessary tools to identify, prevent and effectively manage the risks associated with food safety in the production of food of animal origin.





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*You will update your knowledge in Veterinary Food Safety in a real scenario, with the maximum scientific rigor of an institution at the technological forefront”*





## General Objectives

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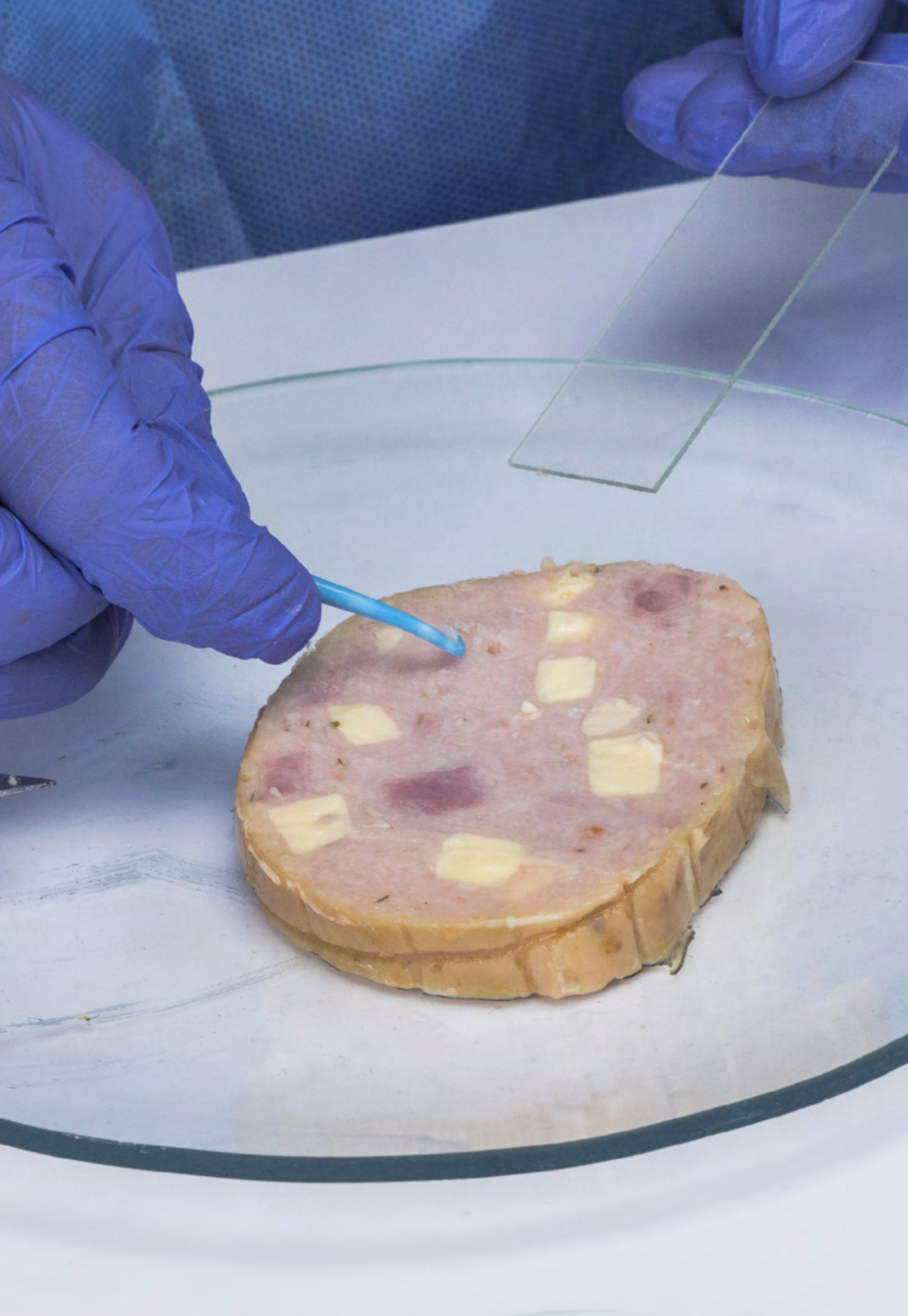
- The general objective of the Hybrid Professional Master's Degree in Veterinary Food Safety is to provide the graduate with delve into the applicable regulations concerning primary animal production, as well as into the internal auditing and certification systems, under the guidance of recognized professionals, in a center of the highest scientific quality and technological innovation. In this Hybrid Professional Master's Degree, the student will address the main interventions of the professional, allowing them to improve and enhance their skills in the evaluation of the food industry procedures and the mechanisms of action



*This is a flexible university qualification that is compatible with the most demanding daily responsibilities. Don't wait any longer and enroll"*







## Specific Objectives

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### Module 1. Traceability of Raw Materials and Consumables

- ◆ Establish the basic principles of food safety
- ◆ Compile the reference databases on applicable food safety regulations
- ◆ Develop relevant aspects in the production of food of animal origin and its derivatives

### Module 2. Analytical and Instrumental Techniques in Process and Product Quality Control

- ◆ Establish the quality characteristics to be met by raw materials, intermediate and finished products according to their origin, prior to their laboratory analysis
- ◆ Develop the relevant methodology for product conformity, taking into account the applicable requirements considered by the regulations and standards

### Module 3. Logistics and Batch Traceability

- ◆ Examine the different types of traceability and scope of application
- ◆ Analyze the principles, requirements and measures of food legislation in the context of traceability

### Module 4. Food Legislation and Quality and Safety Standards

- ◆ Define the fundamentals of food law
- ◆ Describe and develop the main international, European and national organizations in the field of food safety, as well as determine their competencies

#### **Module 5. Food Safety Management**

- ◆ 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

#### **Module 6. Food Safety Certifications for the Food Industry**

- ◆ Establish the general requirements for certification
- ◆ Identify the different types of Good Practices (GxP) required in a food safety management system and their certification

#### **Module 7. Digitization of the Quality Management System**

- ◆ Examine the quality standards and food norms in force for the digitization of the different international reference bodies
- ◆ Identify the main commercial software and internal IT strategies that enable the management of specific food safety and quality processes

#### **Module 8. Validation of New Methodologies and Processes**

- ◆ Know the main differences between control points and critical control points
- ◆ Develop prerequisite programs and management charts to ensure food safety







### **Module 9. R&D&I of Novel Foods and Ingredients**

- ♦ Establish new trends in food technologies that give rise the development of a line of research and implementation of new products in the market
- ♦ Design research and development protocols for the incorporation of functional ingredients to a base food, taking into account its techno-functional properties, as well as the technological process involved in its elaboration

### **Module 10. Development, Coordination and Execution of R&D&I Projects**

- ♦ Establish R&D&I systems that enable the development of novel foods and ingredients especially in food safety issues, so that they can address research, development and innovation in the field of novel foods and ingredients
- ♦ Compile the sources of financing for R&D&I activities in the development of new food products that allow different innovation strategies in the food industry to be addressed



# 04 Skills

After passing the evaluations of the Hybrid Professional Master's Degree in Veterinary Food Safety, the professional will have acquired the necessary professional skills to contribute to ensure that the food produced has all the food guarantees. In addition, graduates will apply research and development methodologies to evaluate the functionality, bioavailability and bioaccessibility of new foods and ingredients.





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*By means of videos, interactive summaries or evaluative tests, you will assimilate all the contents of this Hybrid Professional Master's Degree in a fast and enjoyable way"*



## General Skills

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- ◆ Use good hygienic practices in food production
- ◆ Delve into the current regulations to be used by food laboratories.
- ◆ Elaborate and control that the food produced meets all food guarantees
- ◆ Ensure the safety of all processes involved in food production
- ◆ Controlling food industry procedures







## Specific Skills

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- ◆ Address the applicable food safety regulations and apply them in each production process
- ◆ Protecting animal welfare, from breeding to slaughter
- ◆ Understand the impact of the food industry on the environment and promoting sustainable development
- ◆ Differentiate the quality characteristics that all foods must meet prior to laboratory analysis
- ◆ Apply the appropriate techniques for quality control, following the most accurate methodologies
- ◆ Ensuring the quality of products to be consumed by humans and animals
- ◆ Identify all the processes related to the traceability of a product and analyze the different systems related to this field
- ◆ Locate and recall all products that have incidents
- ◆ Determine the logistic process at each point of the food chain
- ◆ Distinguish the fundamentals of food law and food security policy
- ◆ Define the types of responsibility of the people involved in the food chain and the types of crime that can occur
- ◆ Identify hazards associated with food and analyze them
- ◆ Controlling this type of hazards
- ◆ Apply the different food safety certification systems
- ◆ Perform the work according to safety certificates
- ◆ Identify food quality standards, commercial software and IT strategies to make food as safe as possible
- ◆ Digitize risk communication processes
- ◆ Control the whole process of elaboration of the products, taking into account the control points
- ◆ Monitor, verify and validate the entire production process
- ◆ Conduct internal audits
- ◆ Research the creation of new products
- ◆ Design research protocols, using new technologies
- ◆ Using R&D&I systems to develop new foods
- ◆ Access scientific, economic and legal information sources to develop new products



*Don't miss this opportunity to acquire the professional skills that will propel your practice to excellence with TECH"*

05

# Course Management

In building the faculty for the Hybrid Professional Master's Degree in Veterinary Food Safety, TECH has brought together the best specialists in the field, selecting professionals with extensive and recognized professional backgrounds. Each faculty member brings practical experience and expertise, guaranteeing participants access to the highest quality knowledge. These experts, committed to academic excellence, will be dedicated to guiding graduates through their learning, providing a practical and up-to-date perspective.





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*Get updated on the latest methodologies in Veterinary Food Safety by the best experts in the field: TECH's teachers”*



## Management



### Dr. Limón Garduza, Rocío Ivonne

- Quality Inspector and Bromatological Expertise at Just Quality System SL
- Lecturer in Food Safety and Safety at the Mercamadrid Training Center  
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
- Professional Master's Degree in Food Biotechnology (MBTA) from the University of Oviedo

## Professors

### Dr. Rendueles de la Vega, Manuel

- ♦ Chemical Engineer with expertise in Food Biotechnology.
- ♦ Principal investigator in three projects of the National R&D Plan
- ♦ University Professor
- ♦ PhD in Chemical Engineering, University of Oviedo
- ♦ Expert in Food Biotechnology

### Dr. Moreno Fernández, Silvia

- ♦ Product Developer at Mimic Seafood
- ♦ New product developer at Restaurant Coque
- ♦ Researcher
- ♦ PhD in Food Science from the Autonomous University of Madrid
- ♦ Degree in Biology from the Complutense University of Madrid

### Dr. Colina Coca, Clara

- ♦ Nutritionist and Dietician in private practice.
- ♦ Professor of programs related to Nutrition and Dietetics
- ♦ PhD in Food Nutrition Science and Technology from the Complutense University of Madrid
- ♦ Master's Degree in Food Safety and Quality from the University Polytechnic of Valencia
- ♦ Graduate in Human Nutrition and Dietetics from the Central University of Catalonia

### Dr. Martínez López, Sara

- ♦ Doctorate in Pharmacy specializing in Nutrition and Food Science
- ♦ Assistant Professor Doctor at the Complutense University of Madrid
- ♦ Assistant Professor of Nutrition and Food Technology, European University of Madrid
- ♦ Researcher in the Microbiota, Food and Health Research Group at the European University of Madrid
- ♦ Doctorate in Pharmacy from the Complutense University of Madrid
- ♦ Degree in Chemistry from the University of Murcia

### Dr. Velderrain Rodríguez, Gustavo Rubén

- ♦ Coordinator of scientific and regulatory affairs at the Latin American Alliance for Responsible Nutrition (ALANUR)
- ♦ Responsible Researcher at Quality Corn Group
- ♦ Research Analyst at Organic Nature México S.A. de C.V.
- ♦ PhD in Science from Center for Research in Food and Development, A.C. (CIAD)
- ♦ Biotechnological engineer at the Institute of Technology of Sonora
- ♦ Member of the National System of Researchers of CONACyT, Mexico

**Ms. Escandell Clapés, Erica**

- ♦ Head of Food Quality and Safety Department of the meat industry Subirats Group
- ♦ Food Industry Consultant
- ♦ Dietician at Iss Group
- ♦ Degree in Food Science and Technology, University of Vic
- ♦ Master's Degree in Food development and innovation from the University of Barcelona
- ♦ Diploma in Human Nutrition and Dietetics from the University of Vic

**Ms. Andrés Castillo, Alcira Rosa**

- ♦ Researcher and Senior Consultant in Pharmaceutical Marketing
- ♦ Researcher in the GenObIACM Project, Group of the Complutense University of Madrid
- ♦ Manager of Clinical Drug Trials at the Ramón y Cajal University Hospital
- ♦ RyC Institute for Health Research (IRYCIS). U. Endothelium and MCM
- ♦ Marketing Consultant at Bioroi
- ♦ EC Coordinator with drugs and food products.
- ♦ Data Manager for Clinical Trials with DM2 drugs
- ♦ Regional Marketing Manager Latin America, Siemens Ag Siemens AG
- ♦ Degree in Marketing UADE
- ♦ Postgraduate Diploma in Nutrition and Dietetics with CV Risk Factors and DM by UNED
- ♦ Course on Food Traceability by the USAL Foundation





**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

**Ms. Montes Luna, Marifé**

- ◆ IFS *Trainer* for IFS Food V7
- ◆ ATP in BRCGS Food
- ◆ Trainer 2.0 in Management Systems and Food Safety in Gestión Integral CIM SL
- ◆ Food Safety Auditor at SGS
- ◆ Technical Director at Qualitatus, Food Safety Management Software.
- ◆ Agricultural Engineer with Specialization in Food Industry at the University of Córdoba.
- ◆ Degree in Agricultural Engineering at the ETSIAM of Córdoba.
- ◆ Master's Degree in Food Safety from the University of Salamanca.
- ◆ Intensive Business Management Program Pide at Instituto Internacional de San Telmo

# 06

## Educational Plan

Throughout this curriculum, graduates will be immersed in an updated syllabus, where the latest methods in Food Safety will be addressed. Highlighting strategies for the digitization of protocols and documents related to the management of various processes of Food Quality and Safety. Through a practical and theoretical approach, students will acquire specialized knowledge that will allow them to face the emerging challenges in this field, taking advantage of the latest technologies. The structure of the program will guarantee a complete and updated training, guiding the participants towards the mastery of Food Safety in the Veterinary industry.





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*You will have access to a curriculum designed by a reputable teaching staff, which will guarantee you exhaustive and rigorous learning”*



### Module 1. Traceability of Raw Materials and Consumables

- 1.1. Basic Principles of Food Safety
  - 1.1.1. Main Objectives of Food Safety
  - 1.1.2. Basic Concepts
  - 1.1.3. Traceability Concept and Application in the Food Industry
- 1.2. General Hygiene Plan
  - 1.2.1. Basic Concepts
  - 1.2.2. Types of General Hygiene Plans
- 1.3. Primary Animal Food Production
  - 1.3.1. Basic Aspects and Animal Welfare
  - 1.3.2. Breeding and Feeding
  - 1.3.3. Transport of Live Animals
  - 1.3.4. Animal Slaughter
- 1.4. Primary Production of Animal Derivatives. Distribution of Raw Materials
  - 1.4.1. Milk Production
  - 1.4.2. Poultry Production
  - 1.4.3. Distribution of Raw Materials of Animal Origin
- 1.5. Primary Production of Plant-Based Foodstuffs
  - 1.5.1. Basic Aspects
  - 1.5.2. Types of Vegetable Crops
  - 1.5.3. Other Agricultural Products
- 1.6. Good Practices in Plant Production. Use of Phytosanitary Products
  - 1.6.1. Sources of Contamination of Vegetable Foods
  - 1.6.2. Transport of Raw Materials of Plant Origin and Risk Prevention
  - 1.6.3. Use of Phytosanitary Products
- 1.7. Water in the Agri-Food Industry
  - 1.7.1. Livestock
  - 1.7.2. Agriculture
  - 1.7.3. Aquaculture
  - 1.7.4. Water for Human Consumption in Industry
- 1.8. Audit and Certification of Primary Production
  - 1.8.1. Official Control Audit Systems
  - 1.8.2. Food Certifications

- 1.9. Foods of Differentiated Quality
  - 1.9.1. Protected Designation of Origin (PDO)
  - 1.9.2. Protected Geographical Indication (PGI)
  - 1.9.3. Traditional Specialty Guaranteed (TSG)
  - 1.9.4. Optional Quality Terms
  - 1.9.5. Use of Plant Varieties and Animal Breeds
  - 1.9.6. Organic Agriculture and Livestock
- 1.10. Food Industry and Environment
  - 1.10.1. Sustainable Development Goals (SDGs)
  - 1.10.2. Solutions Proposed by the Agri-Food Industry
  - 1.10.3. Genetically Modified Organisms as a Path to Sustainable Development

### Module 2. Analytical and Instrumental Techniques in Process and Product Quality Control

- 2.1. Laboratory Types, Regulations and Standards
  - 2.1.1. Reference Laboratories
    - 2.1.1.1. European Reference Laboratory
    - 2.1.1.2. National Reference Laboratories
  - 2.1.2. Food Laboratory
  - 2.1.3. Regulations and Standards Applicable to Laboratories (ISO/IEC 17025)
    - 2.1.3.1. General Requirements for Laboratory Competence
    - 2.1.3.2. Equipment Testing and Calibration
    - 2.1.3.3. Implementation and Validation of Analytical Methods
- 2.2. Official Control of the Agri-Food Chain
  - 2.2.1. PNCPA of the Agri-Food Chain
  - 2.2.2. Competent Authorities
  - 2.2.3. Legal Support for Official Control
- 2.3. Official Methods of Food Analysis
  - 2.3.1. Methods of Animal Feed Analysis
  - 2.3.2. Water Analysis Methods
    - 2.3.2.1. Analytical Requirements According to R.D. 140/2003
    - 2.3.2.2. Sampling Frequencies According to Type of Industry
  - 2.3.3. Methods of Analysis of Cereals
  - 2.3.4. Analysis methods for fertilizers, residues of phytosanitary and veterinary products



- 2.3.5. Methods of Analysis of Food Products
- 2.3.6. Methods of Analysis of Meat Products
- 2.3.7. Fat Analysis Methods
- 2.3.8. Methods of Analysis of Dairy Products
- 2.3.9. Methods of Analysis of Wines, Juices and Musts
- 2.3.10. Methods of Analysis of Fishery Products
- 2.4. On-Site Analytical Techniques for Fresh Food Receiving, Processing and Finished Product
  - 2.4.1. In Food Handling
    - 2.4.1.1. Analysis of Environments and Surfaces
    - 2.4.1.2. Handler Analysis
    - 2.4.1.3. Equipment Analysis
  - 2.4.2. Analysis of Dresh Feed and Finished Product
    - 2.4.2.1. Product Data Sheets
    - 2.4.2.2. visual Inspection
    - 2.4.2.3. Color Charts
    - 2.4.2.4. Organoleptic Evaluation According to Food Type
  - 2.4.3. Basic Physicochemical Analysis
    - 2.4.3.1. Determination of Maturity Index in Fruit
    - 2.4.3.2. Firmness
    - 2.4.3.3. Brix Degrees
- 2.5. Nutritional Analysis Techniques
  - 2.5.1. Protein Determination
  - 2.5.2. Determination of Carbohydrates
  - 2.5.3. Determination of Fats
  - 2.5.4. Ash Determination
- 2.6. Microbiological and Physicochemical Food Analysis Techniques
  - 2.6.1. Preparation Techniques: Fundamentals, Instrumentation and Application in Food Processing
  - 2.6.2. Microbiological Analysis
    - 2.6.1.2. Handling and Treatment of Samples for Microbiological Analysis
  - 2.6.3. Basic Physicochemical Analysis
    - 2.6.3.1. Handling and Treatment of Samples for Physicochemical Analysis

- 2.7. Instrumental Techniques in Food Analysis
  - 2.7.1. Characterization, Quality Indexes and Product Conformity
    - 2.7.1.1. Food Safety / Food Integrity
  - 2.7.2. Analysis of Residues of Prohibited Substances in Food
    - 2.7.2.1. Organic and Inorganic Waste
    - 2.7.2.2. Heavy Metals
    - 2.7.2.3. Additives
  - 2.7.3. Analysis of Adulterant Substances in Foodstuffs
    - 2.7.3.1. Milk
    - 2.7.3.2. Wine
    - 2.7.3.3. Honey
- 2.8. Analytical Techniques Used in GMOs and Novel Foods
  - 2.8.1. Concept
  - 2.8.2. Detection Techniques
- 2.9. Emerging Analytical Techniques to Prevent Food Fraud
  - 2.9.1. Food Fraud
  - 2.9.2. Food Authenticity
- 2.10. Issuance of Certificates of Analysis
  - 2.10.1. In the Food Industry
    - 2.10.1.1. Internal Reporting
    - 2.10.1.2. Report to Customers and Suppliers
    - 2.10.1.3. Bromatological Expertise
  - 2.10.2. In Reference Laboratories
  - 2.10.3. In Food Laboratories
  - 2.10.4. In Arbitration Laboratories

### Module 3. Logistics and Batch Traceability

- 3.1. Introduction to Traceability
  - 3.1.1. Background to the Traceability System
  - 3.1.2. Traceability Concept
  - 3.1.3. Types of Traceability
  - 3.1.4. Information Systems
  - 3.1.5. Advantages of Traceability

- 3.2. Legal Framework for Traceability. Part I
  - 3.2.1. Introduction
  - 3.2.2. Horizontal Legislation Related to Traceability
  - 3.2.3. Vertical Legislation Related to Traceability
- 3.3. Legal Framework for Traceability. Part II
  - 3.3.1. Mandatory Application of the Traceability System
  - 3.3.2. Objectives of the Traceability System
  - 3.3.3. Legal Responsibilities BORRAR
  - 3.3.4. Penalty Regime
- 3.4. Implementation of the Traceability Plan
  - 3.4.1. Introduction
  - 3.4.2. Previous Stages
  - 3.4.3. Traceability Plan
  - 3.4.4. Product Identification System
  - 3.4.5. System Test Methods
- 3.5. Product Identification Tools
  - 3.5.1. Hand Tools
  - 3.5.2. Automated Tools
    - 3.5.2.1. EAN Bar Code
    - 3.5.2.2. RFID/// EPC
  - 3.5.3. Records
    - 3.5.3.1. Registration Identification of Raw Materials and other Materials
    - 3.5.3.2. Registration of Food Processing
    - 3.5.3.3. Final Product Identification Record
    - 3.5.3.4. Recording of the Results of Checks Performed
    - 3.5.3.5. Record Keeping Period
- 3.6. Incident Management, Product Recall and Reclamation and Customer Complaints
  - 3.6.1. Incident Management Plan
  - 3.6.2. Manage Customer Complaints
- 3.7. Supply Chain
  - 3.7.1. Definition
  - 3.7.2. Supply Chain Steps
  - 3.7.3. Supply Chain Trends



- 3.8. Logistics
  - 3.8.1. The Logistical Process
  - 3.8.2. Supply Chain vs. Logistics
  - 3.8.3. Containers
  - 3.8.4. Packaging
- 3.9. Modes and means of Transportation
  - 3.9.1. Transportation Concept
  - 3.9.2. Modes of Transport, Advantages and Disadvantages
- 3.10. Food Product Logistics
  - 3.10.1. Cold Chain
  - 3.10.2. Perishable Products
  - 3.10.3. Non-Perishable Products

## Module 4. Food Legislation and Quality and Safety Standards

- 4.1. Introduction
  - 4.1.1. Legal Organization
  - 4.1.2. Basic Concepts
    - 4.1.2.1. Law
    - 4.1.2.2. Legislation
    - 4.1.2.3. Food legislation
    - 4.1.2.4. Standard
    - 4.1.2.5. Royal Decree
    - 4.1.2.6. Certifications
- 4.2. International Food Legislation. International Organizations
  - 4.2.1. Food and Agriculture Organization of the United Nations (FAO)
  - 4.2.2. World Health Organisation (WHO)
  - 4.2.3. Codex Alimentarius Commission
  - 4.2.4. World Trade Organization
- 4.3. European Food Legislation
  - 4.3.1. European Food Legislation
  - 4.3.2. White Paper on Food Safety
  - 4.3.3. Principles of Food Legislation
  - 4.3.4. General Requirements of Food Legislation
  - 4.3.5. Procedures
  - 4.3.6. European Food Safety Authority (EFSA)
- 4.4. Spanish Food Legislation
  - 4.4.1. Skills
  - 4.4.2. Organizations
- 4.5. Food Safety Management in the company
  - 4.5.1. Responsibilities
  - 4.5.2. Authorization
  - 4.5.3. Certifications
- 4.6. Horizontal Food Legislation. Part 1
  - 4.6.1. General Hygiene Regulations
  - 4.6.2. Water for Public Consumption
  - 4.6.3. Official Control of Foodstuffs
- 4.7. Horizontal Food Legislation. Part 2
  - 4.7.1. Storage, Preservation and Transportation
  - 4.7.2. Materials in Contact with Food
  - 4.7.3. Food Additives and Flavorings
  - 4.7.4. Contaminants in Food
- 4.8. Horizontal Food Legislation. Products of Plant Origin
  - 4.8.1. Vegetables and By-Products
  - 4.8.2. Fruits and Derivatives
  - 4.8.3. Cereals
  - 4.8.4. LegumesL
  - 4.8.5. Edible Vegetable Oils
  - 4.8.6. Edible Fats
  - 4.8.7. Seasonings and Spices
- 1.9. Horizontal Food Legislation. Products of Animals. Origin
  - 4.9.1. Meat and Meat Derivatives
  - 4.9.2. Fish Products
  - 4.9.3. Milk and Dairy Products
  - 4.9.4. Eggs and Egg Products
- 4.10. Horizontal Food Legislation. Other Products
  - 4.10.1. Stimulant Foods and Derivatives
  - 4.10.2. Beverages
  - 4.10.3. Prepared Dishes

## Module 5. Food Safety Management

- 5.1. Food Safety Principles and Management
  - 5.1.1. The Concept of Danger
  - 5.1.2. The Concept of Risk
  - 5.1.3. Risk Evaluation
  - 5.1.4. Food Safety and Its Management Based on Risk Assessment
- 5.2. Physical Dangers
  - 5.2.1. Concepts and Considerations on Physical Hazards in Foods
  - 5.2.2. Physical Hazard Control Methods
- 5.3. Chemical Hazards
  - 5.3.1. Concepts and Considerations on Chemical Hazards in Foods
  - 5.3.2. Chemical Hazards Naturally Occurring in Food
  - 5.3.3. Hazards Associated with Chemicals Intentionally Added to Foods
  - 5.3.4. Incidentally or Unintentionally Added Chemical Hazards
  - 5.3.5. Chemical Hazard Control Methods
  - 5.3.6. Allergens in Food
  - 5.3.7. Allergen Control in the Food Industry
- 5.4. Biological Hazards
  - 5.4.1. Concepts and Considerations of Biological Hazards in Foods
  - 5.4.2. Microbial Hazards
  - 5.4.3. Non-Microbial Biological Hazards
  - 5.4.4. Biological Hazard Control Methods
- 5.5. Good Manufacturing Practices Program (GMP)
  - 5.5.1. Good Manufacturing Practices (GMP)
  - 5.5.2. Background on GMP
  - 5.5.3. Scope of GMPAI
  - 5.5.4. GMPs in a Safety Management System
- 5.6. Standard Operating Procedure for Sanitation (SSOP)
  - 5.6.1. Sanitary Systems in the Food Industry
  - 5.6.2. Scope of SSOPs
  - 5.6.3. Structure of a SSOP
  - 5.6.4. SSOPs in a Safety Management System

- 5.7. The Hazard Analysis and Critical Control Point (HACCP) Plan
  - 5.7.1. Hazard Analysis and Critical Control Points (HACCP)
  - 5.7.2. Background of HACCP
  - 5.7.3. HACCP Prerequisites
  - 5.7.4. The 5 Preliminary Steps to HACCP Implementation
- 5.8. The 7 Steps of Hazard and Critical Control Point (HACCP) Plan Implementation
  - 5.8.1. Risk Analysis
  - 5.8.2. Identification of Critical Control Points
  - 5.8.3. Establishment of Critical Limits
  - 5.8.4. Establishment of Monitoring Procedures
  - 5.8.5. Implementation of Corrective Actions
  - 5.8.6. Establishment of Verification Procedures
  - 5.8.7. Record Keeping and Documentation System
- 5.9 Evaluation of the Efficiency of the Hazard and Critical Control Point Plan (HACCP) System
  - 5.9.1. Evaluation of the Efficiency of a CCP
  - 5.9.2. Overall Evaluation of the Efficiency of the HACCP Plan
  - 5.9.3. Use and Management of Records to Evaluate the Efficiency of the HACCP Plan
- 5.10. Hazard and Critical Control Point Plan (HACCP) System Variants Based on Risk Systems
  - 5.10.1. Vulnerability Assessment and Critical Control Points (VACCP) Plan
  - 5.10.2. TACCP or Threat Assessment Critical Control Points (Threat Assessment Critical Control Points)
  - 5.10.3. HARPC or Hazard Analysis & Risk-Based Preventive Controls (HARPC)

## Module 6. Food Safety Certifications for the Food Industry

- 6.1. Principles of Certification
  - 6.1.1. The Certification Concept
  - 6.1.2. The Certifying Agencies
  - 6.1.3. General Outline of a Certification Process
  - 6.1.4. Management of a Certification and Re-certification Program
  - 6.1.5. Management System Before and After Certification

- 6.2. Good Practice Certifications
  - 6.2.1. Good Manufacturing Practice (GMP) certification
  - 6.2.2. The case of GMP for food supplements
  - 6.2.3. Certification of Good Practices for Primary Production
  - 6.2.4. Other Good Practice Programs (GxP)
- 6.3. ISO 17025 Certification
  - 6.3.1. The ISO Standards Scheme
  - 6.3.2. ISO 17025 System Overview
  - 6.3.3. ISO 17025 Certification
  - 6.3.4. The Role of ISO 17025 Certification in Food Safety Management
- 6.4. ISO 22000 Certification
  - 6.4.1. Background
  - 6.4.2. Structure of the ISO 22000 Standard
  - 6.4.3. Scope of ISO 22000 Certification
- 6.5. GFSI Initiative and the Global GAP and Global Markets Program
  - 6.5.1. The GFSI (Global Food Safety Initiative) Global Food Safety System
  - 6.5.2. Global GAP Program Structure
  - 6.5.3. Scope of Global GAP Certification
  - 6.5.4. Structure of the Global Markets Program
  - 6.5.5. Scope of the Global Markets Program Certification
  - 6.5.6. Relation between Global GAP and Global Markets with Other Certifications
- 6.6. SQF Certification (Safe Quality Food)
  - 6.6.1. SQF Program Structure
  - 6.6.2. Scope of SQF Certification
  - 6.6.3. Relationship of SQF With Other Certifications
- 6.7. BRC Certification (British Retail Consortium)
  - 6.7.1. BRC Program Structure
  - 6.7.2. Scope of BRC Certification
  - 6.7.3. Relationship of BRC With Other Certifications
- 6.8. IFS Certification
  - 6.8.1. IFS Program Structure
  - 6.8.2. Scope of IFS Certification
  - 6.8.3. Relation between IFS and Other Certification

- 6.9. Food Safety System Certification 22000 (FSSC 22000)
  - 6.9.1. Background of the FSSC 22000 Program
  - 6.9.2. FSSC 22000 Program Structure
  - 6.9.3. Scope of FSSC 22000 Certification
- 6.10. Food Defense Programs
  - 6.10.1. The Concept of Food Defense
  - 6.10.2. Scope of a Food Defense Program
  - 6.10.3. Tools and Programs for Implementing a Food Defense Program

## Module 7. Digitization of the Quality Management System

- 7.1 Quality Standards and Risk Analysis in the Food Industry
  - 7.1.1. Current Food Safety and Quality Standards
  - 7.1.2. Main Risk Factors in Food Products
- 7.2. The "Age of Digitization" and Its Influence on Global Food Safety Systems
  - 7.2.1. Codex Alimentarius Global Food Safety Initiative
  - 7.2.2. Hazard Analysis and Critical Control Point (HACCP)
  - 7.2.3. ISO 22000
- 7.3. Commercial Software for Food Safety Management
  - 7.3.1. Use of Smart Devices
  - 7.3.2. Business Software for Specific Management Processes
- 7.4. Establishment of Digital Platforms for the Integration of a Team Responsible for the Development of the HACCP Program
  - 7.4.1. Stage 1. Preparation and Planning
  - 7.4.2. Stage 2. Implementation of Prerequisite Programs for Hazards and Critical Control Points of the HACCP program
  - 7.4.3. Stage 3. Execution of the Plan
  - 7.4.4. Stage 4. HACCP Verification and Maintenance
- 7.5. Digitization of Pre-requisite Programs (PPR) in the Food Industry - From Traditional to Digital Systems
  - 7.5.1. Primary Production Processes
    - 7.5.1.1. Good Hygiene Practices (GHP)
    - 7.5.1.2. Good Manufacturing Practices (GMP)
  - 7.5.2. Strategic Processes
  - 7.5.3. Operational Processes
  - 7.5.4. Support Processes



- 7.6. Platforms for Monitoring "Standard Operating Procedures (SOPs)"
  - 7.6.1. Training of Personnel in the Documentation of Specific SOPs
  - 7.6.2. Channels of Communication and Monitoring of SOP Documentation
- 7.7. Protocols for Document Management and Communication Between Departments
  - 7.7.1. Traceability Document Management
    - 7.7.1.1. Procurement Protocols
    - 7.7.1.2. Traceability of Raw Material Receipt Protocols
    - 7.7.1.3. Traceability of Warehouse Protocols
    - 7.7.1.4. Process Area Protocols
    - 7.7.1.5. Traceability of Hygiene Protocols
    - 7.7.1.6. Product Quality Protocols
  - 7.7.2. Implementation of Alternative Communication Channels
    - 7.7.2.1. Use of Storage Clouds and Restricted Access Folders
    - 7.7.2.2. Coding of Documents for Data Protection
- 7.8. Digital Documentation and Protocols for Audits and Onspections
  - 7.8.1. Management of Internal Audits
  - 7.8.2. Record of Corrective Actions
  - 7.8.3. Application of the "Deming cycle
  - 7.8.4. Management of Continuous Improvement Programs
- 7.9. Strategies for Proper Risk Communication
  - 7.9.1. Risk Management and Communication Protocols
  - 7.9.2. Effective Communication Strategies
  - 7.9.3. Public Information and Use of Social Networks
- 7.10. Case Studies of Digitization and Its Advantages in Reducing Risks in the Food Industry
  - 7.10.1. Food Safety Risks
  - 7.10.2. Food Fraud Risks
  - 7.10.3. Food Defense Risks

## Module 8. Validation of New Methodologies and Processes

- 8.1. Critical Control Points
  - 8.1.1. Significant Hazards
  - 8.1.2. Prerequisite Programs
  - 8.1.3. Critical Control Point Management Chart
- 8.2. Verification of a Self-Control System
  - 8.2.1. Internal Audits
  - 8.2.2. Review of Historical Records and Trends
  - 8.2.3. Customer Complaints
  - 8.2.4. Detection of Internal Incidents
- 8.3. Monitoring, Validation and Verification of Control Points
  - 8.3.1. Surveillance or Monitoring Techniques
  - 8.3.2. Validation of Controls
  - 8.3.3. Efficiency Verification
- 8.4. Validation of Processes and Methods
  - 8.4.1. Documentary Support
  - 8.4.2. Validation of Analytical Techniques
  - 8.4.3. Validation Sampling Plan
  - 8.4.4. Method Bias and Accuracy
  - 8.4.5. Determining Uncertainty
- 8.5. Validation Methods
  - 8.5.1. Method Validation Stages
  - 8.5.2. Types of Validation Processes, Approaches
  - 8.5.3. Validation Reports, Summary of Data Obtained
- 8.6. Incident and Deviation Management
  - 8.6.1. Formation of the Work Team
  - 8.6.2. Description of the Problem
  - 8.6.3. Root Cause Determination
  - 8.6.4. Corrective and Preventive Actions
  - 8.6.5. Efficiency Verification

- 8.7. Root Cause Analysis and Its Methods
  - 8.7.1. Cause Analysis: Qualitative Methods
    - 8.7.1.1. Tree Causes Root
    - 8.7.1.2. Why
    - 8.7.1.3. Cause Effect
    - 8.7.1.4. Ishikawa Diagram
  - 8.7.2. Cause Analysis: Quantitative Methods
    - 8.7.2.1. Data Collection Data Model
    - 8.7.2.2. Pareto Chart
    - 8.7.2.3. Scatter Plots
    - 8.7.2.4. Histograms
- 8.8. Claims Management
  - 8.8.1. Claim Data Collection
  - 8.8.2. Investigation and Action
  - 8.8.3. Preparation of Technical Report
  - 8.8.4. Claims Trend Analysis
- 8.9. Internal Audits of the Self-Control System
  - 8.9.1. Competent Auditors
  - 8.9.2. Audit Program and Plan
  - 8.9.3. Scope of the Audit
  - 8.9.4. Reference Documents
- 8.10. Execution of Internal Audits
  - 8.10.1. Opening Meeting
  - 8.10.2. System Evaluation
  - 8.10.3. Deviations from Internal Audits
  - 8.10.4. Closing Meeting
  - 8.10.5. Evaluation and Monitoring of the Effectiveness of Deviation Closure

## Module 9. R&D&I of Novel Foods and Ingredients I+D+i

- 9.1. New Trends in Food Product Processing
  - 9.1.1. Design of Functional Foods Aimed at Improving Specific Physiological Functions
  - 9.1.2. Innovation and New Trends in the Design of Functional Foods and Nutraceuticals
- 9.2. Technologies and Tools for Isolation, Enrichment, and Purification of Functional Ingredients from Different Starting Materials
  - 9.2.1. Chemical Properties
  - 9.2.2. Sensory Properties
- 9.3. Procedures and Equipment for the Incorporation of Functional Ingredients into the Base Feed
  - 9.3.1. Formulation of Functional Foods According to Their Chemical and Sensory Properties, Caloric Value, etc
  - 9.3.2. Stabilization of Bioactive Ingredients from Formulation
  - 9.3.3. Dosage
- 9.4. Gastronomy Research
  - 9.4.1. Texture
  - 9.4.2. Viscosity and Flavor. Thickeners Used in Nouvelle Cuisine
  - 9.4.3. Gelling Agents
  - 9.4.4. Emulsions
- 9.5. Innovation and New Trends in the Design of Functional Foods and Nutraceuticals
  - 9.5.1. Design of Functional Foods Aimed at Improving Specific Physiological Functions
  - 9.5.2. Practical Applications of Functional Food Design
- 9.6. Specific Formulation of Bioactive Compounds
  - 9.6.1. Flavonoid Transformation in the Formulation of Functional Foods
  - 9.6.2. Bioavailability Studies of Phenolic Compounds
  - 9.6.3. Antioxidants in the Formulation of Functional Foods
  - 9.6.4. Preservation of Antioxidant Stability in Functional Food Design

- 9.7. Design of Low-Sugar and Low-Fat Products
  - 9.7.1. Development of Low-Sugar Products
  - 9.7.2. Low fat Products
  - 9.7.3. Strategies for the Synthesis of Structured Lipids
- 9.8. Processes for the Development of New Food Ingredients
  - 9.8.1. Advanced Processes to Obtain Food Ingredients with Industrial Application: Micronization and Microencapsulation Technologies
  - 9.8.2. Supercritical and Clean Technologies
  - 9.8.3. Enzymatic Technology for the Production of Novel Food Ingredients
  - 9.8.4. Biotechnological Production of Novel Food Ingredients
- 9.9. New Food Ingredients of Plant and Animal Origin
  - 9.9.1. Trends in R&D&I Developments in New Ingredients
  - 9.9.2. Applications of Plant-Based Ingredients
  - 9.9.3. Applications of Ingredients of Animal Origin
- 9.10. Research and Improvement of Labeling and Preservation Systems
  - 9.10.1. Labeling Requirements
  - 9.10.2. New Conservation Systems
  - 9.10.3. Validation of Health Claims

## Module 10. Development, Coordination and Execution of R&D&I Projects

- 10.1. Innovation and Competitiveness in the Food Industry
  - 10.1.1. Analysis of the Food Sector
  - 10.1.2. Innovation in Processes, Products and Management
  - 10.1.3. Regulatory Conditions for the Marketing of Novel Foods
- 10.2. The R&D System
  - 10.2.1. Public Investigation and Private Investigation
  - 10.2.2. Regional and Local Business Support Plans
  - 10.2.3. National R&D&I Plans
  - 10.2.4. International Programs
  - 10.2.5. Research Promotion Organizations
- 10.3. R+D+I Projects
  - 10.3.1. R&D&I Aid Programs
  - 10.3.2. Types of Projects
  - 10.3.3. Types of Financing
  - 10.3.4. Project Evaluation, Monitoring and Control





- 10.4. Scientific and Technological Production
  - 10.4.1. Publication, Dissemination and Diffusion of Research Results
  - 10.4.2. Basic Research/Applied Research
  - 10.4.3. Private Sources of Information
- 10.5. Technology Transfer
  - 10.5.1. Protection of Industrial Property. Patents
  - 10.5.2. Regulatory Constraints on Transfers in the Food Sector
  - 10.5.3. European Food Safety Authority (EFSA)
  - 10.5.4. Food and Drug Administration (FDA)
  - 10.5.5. National Organizations. Example: Spanish Agency for Food Safety and Nutrition (AESAN)
- 10.6. Planning of R&D&I Projects
  - 10.6.1. Work Decomposition Scheme
  - 10.6.2. Resource Allocation
  - 10.6.3. Priority of Tasks
  - 10.6.4. Gantt Chart Method
  - 10.6.5. Digitally Supported Planning Methods and Systems
- 10.7. Documentary Development of R&D&I Projects
  - 10.7.1. Prior Studies
  - 10.7.2. Delivery of Progress Reports
  - 10.7.3. Development of the Project Report
- 10.8. Project Execution
  - 10.8.1. Checklist
  - 10.8.2. Deliverables
  - 10.8.3. Project Progress Control
- 10.9. Project Delivery and Validation
  - 10.9.1. ISO Standards for the Management of R&D&I Projects
  - 10.9.2. Completion of the Project Phase
  - 10.9.3. Analysis of Results and Feasibility
- 10.10. Implementation of R&D&I Projects Developed by the Company
  - 10.10.1. Purchase Management
  - 10.10.2. Supplier Validation
  - 10.10.3. Project Validation and Verification

07

# Clinical Internship

Once the graduate completes the initial phase of this program, which includes an online theoretical curriculum, they will move on to a second stage of practical training in a reference center. In this way, the student will have the support of an outstanding tutor in the field, who will provide comprehensive support throughout the preparation and execution of these internships.





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*You will carry out your stay with a leading expert in Veterinary Food Safety”*



The practical training process in this Hybrid Professional Master's Degree in Veterinary Food Safety is a crucial phase for the comprehensive development of professionals. During a period of 3 weeks, totaling 120 hours, graduates will have the opportunity to apply and consolidate the knowledge acquired in the theoretical phase of the program. This practical experience will be carried out in reference centers, ensuring a realistic and enriching professional environment.

The quality of these internships will be enhanced by the presence of an assistant tutor, specialized in the subject matter. They will not only guide the participants throughout their practical experience, but will also provide essential support to ensure that theoretical knowledge is effectively translated into practical skills. The tutor's close accompaniment will contribute significantly to the success of each student in applying the concepts learned.

The central objective of these internships will be for the graduate to perfect and apply the knowledge acquired during the theoretical phase of the program in real situations. This will ensure that they develop the necessary skills and confidence to face the challenges in the field of Veterinary Food Safety.

The stay will be carried out with the active participation of the student, performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal skills for the praxis of Veterinary Food Safety (learning to be and learning to relate).



The procedures described below will form the basis of the practical part of the training, and their implementation will be subject to the center's own availability and workload, with the proposed activities being the following:

Module	Practical Activity
<b>Inspection of Facilities</b>	Conduct inspections of farms, slaughterhouses, food processing plants, and other animal production facilities
	Identify potential food safety hazards in these facilities
	Evaluate the effectiveness of cleaning and disinfection programs at facilities
	Review documentation and records related to food safety, such as temperature records and waste handling protocols
	Conduct specific inspections to assess compliance with animal welfare regulations in production facilities
	Implement corrective actions after identifying areas for improvement during inspections
<b>Monitoring Hygiene Practices</b>	Observe and evaluate hygienic practices in food handling, processing, and storage
	Food hygiene and safety protocol elaboration
	Conduct unannounced audits to assess consistency in the application of hygiene practices
	Train staff on good hygiene and food handling practices
	Organize practical sessions to demonstrate the correct use of PPE and cleaning tools
	Evaluate the effectiveness of pest control programs and suggest improvements
<b>Quality Control</b>	Implement sampling techniques for quality verification of food products of animal origin
	Perform laboratory tests to evaluate the presence of pathogens or contaminants
	Identify quality indicators in animal products, such as color, texture and odor
	Analyze laboratory reports and interpret microbiological and chemical test results
	Conduct sensory taste tests to evaluate the organoleptic quality of meat and dairy products
	Implement quality certification programs, such as the seal of denomination of origin

Module	Practical Activity
<b>Monitoring of the Supply Chain</b>	Follow the supply chain from farm to fork to identify potential points of contamination or hazards
	Conduct supplier audits and assess product traceability
	Conduct interviews and questionnaires along the supply chain to assess awareness and compliance with food safety practices
	Assist in the implementation of more advanced traceability systems, such as the use of tracking and labeling technologies
	Apply real-time monitoring systems to track temperature and transport conditions of perishable products
	Evaluate the effectiveness of raw material receiving and storage procedures at processing facilities
<b>Training in Good Manufacturing Practices (GMP) and HACCP</b>	Collaborate in the continuous review and update of manuals and procedures related to GMP and HACCP
	Participate in training sessions for work teams on the importance and practical application of GMPs and HACCP
	Implement and monitor Good Manufacturing Practices programs
	Identify critical control points and development of HACCP plans (Hazard Analysis and Critical Control Point)
	Adapt training programs to adapt to changes in regulations or new technologies
	Implement practical sessions on identification and management of critical control points in production processes
<b>Research and Analysis</b>	Participate in research projects related to veterinary food safety and food safety
	Extract epidemiological data and collaborate in the identification of trends and emerging risks
	Collect field data for epidemiological investigations on outbreaks of foodborne disease outbreaks
	Analyze long-term trends in food safety and propose improvements based on findings
	Investigate the use of new technologies, such as smart sensors and blockchain, to improve traceability and safety in the supply chain
	Study the effectiveness of communication strategies to promote the adoption of safer practices in food production

## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.





## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

**1. TUTOR:** During the Hybrid Professional Master's Degree, students will be assigned two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the student does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** The Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 08

## Where Can I Do the Clinical Internship?

This curriculum incorporates a fundamental practical phase, carried out in reference centers in the field of food safety. During this stage, participants will apply in a practical way the knowledge acquired in the theoretical part of the program. In order to extend the scope of this training to a larger number of professionals, TECH offers the possibility of training in various specialized centers throughout the country. This initiative reflects the institution's commitment to educational excellence and affordable access for all those interested in strengthening their food safety skills.







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*Complete your theoretical education with the best practical stay in the educational market”*



## tech 48 | Where Can I Do the Clinical Internship?



The student will be able to complete the practical part of this Hybrid Professional Master's Degree at the following centers:



Pharmacodynamics.

### Marcelle Natureza

Country	City
Spain	Lugo

Address: Marcelle, 6, 27154  
San Martin de Guillar, Lugo

Zoo specializing in conservation  
and animal welfare

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**Related internship programs:**  
- Animal Welfare  
Wildlife Management





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*You will combine theory and professional practice through a demanding and rewarding educational approach”*



09

# 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.







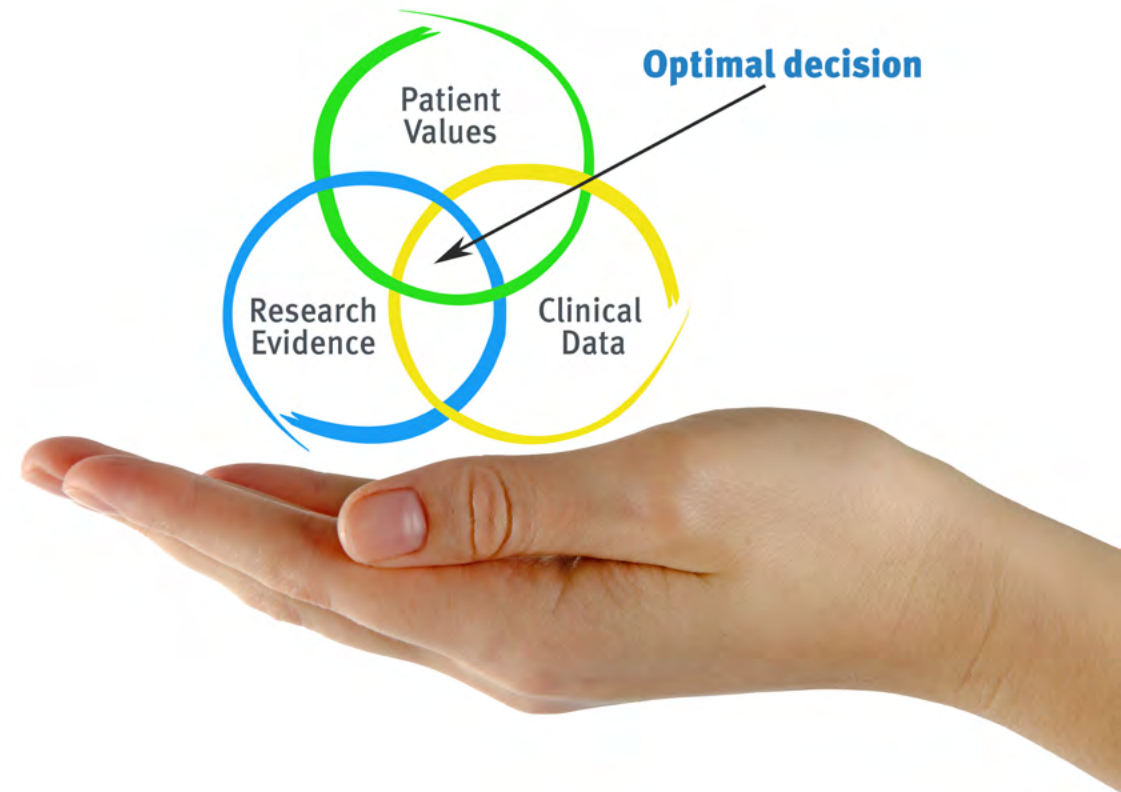
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, 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 you will 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, in an attempt to recreate the actual conditions in a veterinarian's professional 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. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
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. The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the 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.



*Veterinarians will learn through real cases and by resolving 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 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where the students have a high 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.



#### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. 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.



# 10 Certificate

The Hybrid Professional Master's Degree in Veterinary Food Safety guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree issued by TECH Technological University.





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



This **Hybrid Professional Master's Degree in Veterinary Food Safety** contains the most complete and up-to-date scientific on the market.

After the student has passed the assessments, they will receive their corresponding Hybrid Professional Master's Degree diploma issued by TECH Technological University via tracked delivery\*.

In addition to the certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

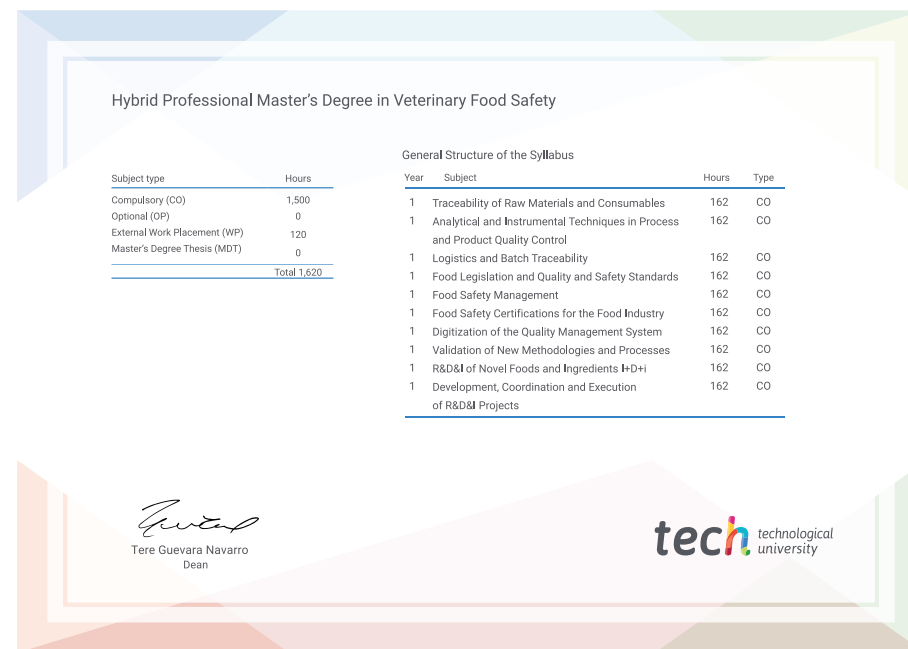
Title: **Hybrid Professional Master's Degree in Veterinary Food Safety**

Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Technological University**

Teaching Hours: **1,620 h.**



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

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development language

classroom

**tech** technological  
university

Hybrid Professional Master's  
Degree

Veterinary Food Safety

Modality: Hybrid (Online + Clinical Internship)

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# Hybrid Professional Master's Degree Veterinary Food Safety

