

# Postgraduate Certificate Veterinary Clinical Trials in Laboratories and Farms





## Postgraduate Certificate Veterinary Clinical Trials in Laboratories and Farms

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/veterinary-medicine/postgraduate-certificate/veterinaire-clinical-trials-laboratories-frams](http://www.techtute.com/pk/veterinary-medicine/postgraduate-certificate/veterinaire-clinical-trials-laboratories-frams)

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# 01

# Introduction

Veterinary sciences are applied in wide areas of research, since there is a great variety of species, with different physiological characteristics. Because of this, Clinical Trials in domestic and production species require specific and advanced knowledge, the demand for which is constantly increasing. This is the reason why TECH has designed a plan of studies that covers topics such as Biology, Management and Clinical Trials in different fields. All this, with the aim of providing the students with specialized skills and competencies in the field, in order to be able to face their work with maximum efficiency. Moreover, in a 100% online modality that gives total freedom of organization to the student.





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*A unique and up-to-date program that will boost your profile in the field of Clinical Trials in just a few weeks"*

Clinical Trials are carried out on species in multiple fields, from domestic animals to those destined for production and consumption. For these areas, the knowledge that a professional must have is very specific and requires advanced skills that are increasingly in demand in an area as relevant as this in the labor market.

This is the reason why the best university in the world has included among its offerings a Postgraduate Certificate in Veterinary Clinical Trials in Laboratories and Farms to provide students with specific skills with which to carry out their work as efficiently as possible. And this, through a syllabus that delves into aspects such as the Interaction between Animals and their Environment, the Adaptation of Protocols, Planning according to the Place of Study or Working Conditions, among other relevant topics.

All this, in a 100% online modality that greatly facilitates the study process of the students, allowing them to advance without seeing repercussions on their other responsibilities and getting through the plan of studies in a short period. In addition, with the most up-to-date and complete theoretical and practical materials on the market.

This **Postgraduate Certificate in Veterinary Clinical Trials in Laboratories and Farms** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ The development of case studies presented by experts in Veterinary Clinical Trials in Laboratories and Farms.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*A program designed to help you achieve excellence in the field of Clinical Trials in Laboratories and Farms"*

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*You will work with the most exhaustive information on Clinical Trials in Companion Animals, in the field of Poultry or Swine"*

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

*You will be able to access all the content from the first day and with any device with an Internet connection, whether it is a tablet, cell phone, or computer.*

*A program that will enhance your skills and allow you to excel in the area of Clinical Trials in just a few weeks.*



# 02 Objectives

The objective of this program is to provide the student with the specific and necessary skills and knowledge to be able to work in this sector with the maximum possible capacity and efficiency. All this, through precise, up-to-date and dynamic contents that represent a unique opportunity in the educational market.







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*Master the procedures and criteria to be taken into account according to the species, thanks to the most innovative theoretical and practical contents"*



## General Objectives

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- ♦ Generate specialized knowledge in the design and interpretation of a clinical trial
- ♦ Examine the key features of Clinical Trials
- ♦ Analyze key analytical concepts in Clinical Trials
- ♦ Justify decisions made to solve problems
- ♦ Evaluate behavioral aspects and standardized procedures of Clinical Trials
- ♦ Review legislation on analytical, toxico-pharmacological and clinical standards and protocols for veterinary drug testing
- ♦ Assess the regulatory environment in relation to Clinical Trials
- ♦ Develop standards for veterinary Clinical Trials
- ♦ Generate specialized knowledge to carry out clinical research
- ♦ Establish the correct methodology for conducting Veterinary Clinical Trials
- ♦ Develop advanced knowledge for the development of a protocol for the conduct of a clinical trial with veterinary drugs
- ♦ Analyze the structure of the different regulatory agencies and organizations and their attributions
- ♦ Correctly manage the documentation generated in the framework of the application, follow-up and completion of a veterinary clinical trial





## Specific Objectives

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- ◆ Examine, step by step, quality assurance and best practices in the application and production of vaccines
- ◆ Develop good clinical practices to regulate personnel and aspects involved in studies
- ◆ Manage field trials, demonstrate safety and efficacy in terms of environmental conditions, care and possible adverse reactions
- ◆ Properly elaborate tests in different areas and give solidity to the sampling method
- ◆ Apply different recommendations to assess exposure to different pathogens and collect quantitative information in order to develop study and work patterns
- ◆ Analyze the processes that can lead to the emergence of resistance to antimicrobial agents and know how to collect therapeutic information to produce results

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*A unique educational opportunity to deepen the role of the veterinarian in different fields, without leaving home and without time limits”*

# 03 Course

The management and teachers of this program have been selected under the highest standards and looking for the highest quality in teaching. In this way, the selected professionals have formed a team of leading experts in the field, who have contributed their experience and specialized knowledge to all the content.





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*Get to stand out in one of the areas with the greatest potential in the veterinary field, with the support of the best experts in Veterinary Clinical Trials”*

## Management



### **Dr. Martín Palomino, Pedro**

- Manager of ALJIBE Veterinary Laboratory
- Senior program researcher at the Castilla-La Mancha Research Center Spain
- PhD in Veterinary Medicine from the University of Extremadura
- Diploma in Public Health from the National School of Health (ENS) at the Carlos III Health Institute (ISCIII)
- Master's Degree in Swine Technology from the Faculty of Veterinary Medicine of Murcia at the University of Murcia
- Professor of Infectious Diseases, Zoonoses and Public Health at the Alfonso X el Sabio University



### **Dr. Fernández García, José Luis**

- Veterinary Doctor
- PhD in Veterinary Medicine from the University of Extremadura
- Graduate in Veterinary with Degree from the University of Extremadura
- Master's Degree in Biotechnology from the CNB Severo Ochoa
- Adjunct Veterinarian, University of Extremadura



## Professors

### Dr. Ripa López - Barrantes, Adriana

- ♦ Veterinarian at the Palacios Veterinary Clinic
- ♦ Veterinarian at Mi Mascota Veterinary Clinic
- ♦ Veterinary collaborator in the Identification and Vaccination Campaign of the Madrid City Council
- ♦ Collaborating researcher in L&O&R projects
- ♦ Teacher at Veterinary University Studies
- ♦ Degree in Veterinary Medicine from Alfonso X El Sabio University
- ♦ Master's Degree in Veterinary Science Research from the Complutense University of Madrid
- ♦ Master's Degree in Teacher Training at the International University of La Rioja



*Take the step to get up-to-date on the latest developments in Veterinary Clinical Trials in Laboratories and Farms"*

# 04

# Structure and Content

The structure and content of this program have been designed by the outstanding professionals that make up TECH's team of experts in Clinical Trials. They have poured their experience and expertise into all the materials, generating a program of the highest quality. In addition, always based on the most efficient pedagogical methodology, Relearning, which guarantees an optimal assimilation of the contents in a natural, progressive and agile way.







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*Assimilate the contents in a natural, progressive and precise way, thanks to the most efficient pedagogical methodology, Relearning”*

## Module 1. Approach to Veterinary Clinical Trials in Different Veterinary Settings Laboratories and Farms

- 1.1. Biology and Animals Management
  - 1.1.1. Interaction Between Animals and Their Environment
  - 1.1.2. Species Criteria
    - 1.1.2.1. Mammals
    - 1.1.2.2. Birds
    - 1.1.2.3. Reptiles
    - 1.1.2.4. Amphibians
    - 1.1.2.5. Fish
  - 1.1.3. Procedures
    - 1.1.3.1. Substance Administration
    - 1.1.3.2. Sample Collection
    - 1.1.3.3. Surgical Procedures
  - 1.1.4. Animal Pain and Suffering
    - 1.1.4.1. Pain Recognition
    - 1.1.4.2. BORRAR
    - 1.1.4.3. Euthanasia
- 1.2. Veterinarians' Role in Different Veterinary Fields
  - 1.2.1. Advantages and Disadvantages in the Different Veterinary Fields
    - 1.2.1.1. Communication.
  - 1.2.2. Adapting Protocols to the Study Environment
    - 1.2.2.1. Veterinarian's Responsibilities
  - 1.2.3. Informed consent
- 1.3. Special Considerations in the Practice of Clinical Trials in Laboratories and on Farms
  - 1.3.1. Structure and Sites for Clinical Trials
    - 1.3.1.1. Study Location Importance
    - 1.3.1.2. Role of Laboratories
    - 1.3.1.3. The Role of Farms
  - 1.3.2. Shipping and Handling of Samples and Medical Products
  - 1.3.3. Evolution of Anti-Parasitic Products
  - 1.3.4. Application and Therapeutics of Vaccines
  - 1.3.5. Responsible Antibiotic Use
    - 1.3.5.1. Resistance Surveillance and Monitoring



- 1.4. Clinical Trials in the Scope of Aquaculture
  - 1.4.1. Study Planning
    - 1.4.1.1. Environmental Requirements
    - 1.4.1.2. Access to Study Sites
    - 1.4.1.3. Working Conditions: Personnel and Equipment
  - 1.4.2. Protocol Development
  - 1.4.3. Types of Research Substances
    - 1.4.3.1. Nutritional Treatments
    - 1.4.3.2. Immersion Baths
    - 1.4.3.3. Vaccines
  - 1.4.4. Design and Procedures
  - 1.4.5. Sampling
  - 1.4.6. Data Processing
- 1.5. Clinical Trials in the Scope of Poultry Farming
  - 1.5.1. Special Conditions in Poultry Farming
    - 1.5.1.1. Study Structure
  - 1.5.2. Study Planning
  - 1.5.3. Protocol Development
  - 1.5.4. Data Processing
- 1.6. Clinical Trials in Companion Animals
  - 1.6.1. Pet Therapy Industry
  - 1.6.2. Pet Characteristics
  - 1.6.3. Protocol Development
  - 1.6.4. Design and Procedures
  - 1.6.5. Working Conditions: Personnel and Equipment
    - 1.6.5.1. Informed consent
    - 1.6.5.2. Protection and Precaution
  - 1.6.7. Study Purpose
- 1.7. Clinical Trials in Pig Farming
  - 1.7.1. The Pig Industry in Recent Years
    - 1.7.1.1. Meat Quality
    - 1.7.1.2. Industry Structure
    - 1.7.1.3. Medical Products and the Industry
  - 1.7.2. Good Practices and Organization of Trials
    - 1.7.2.1. Participant Considerations
    - 1.7.2.2. Research Site Choice
  - 1.7.3. Performance of Procedures
    - 1.7.3.1. Practical Applications
- 1.8. Clinical Trials in Bovines
  - 1.8.1. Test Conditions and Approvals
  - 1.8.2. Study Sites
    - 1.8.2.1. Today's Cattle Industry
    - 1.8.2.2. Choice of Site
  - 1.8.3. Livestock Transportation
  - 1.8.4. Test Substance Considerations
  - 1.8.5. Trial Inclusion and Exclusion Criteria
    - 1.8.5.1. Immune Status and Weaning
    - 1.8.5.2. Signs of Disease
  - 1.8.6. Practical Considerations
    - 1.8.6.1. Design and Procedures
    - 1.8.6.2. Monitoring of Animals and Personnel
- 1.9. Clinical Trials in Sheep and Goats
  - 1.9.1. Small Ruminant Industry
  - 1.9.2. Good Practices and Organization of Trials
    - 1.9.2.1. Trail Conditions
    - 1.9.2.2. Protocol Development
  - 1.9.3. Studies Site Choice
  - 1.9.4. Working Conditions: Personnel and Equipment
  - 1.9.5. Trail Monitoring
- 1.10. Clinical Trials in Equids
  - 1.10.1. Researchers' Role in this Area of Study
  - 1.10.2. Protocol Development
    - 1.10.2.1. Important Aspects of Treatments
    - 1.10.2.2. Importance of Standardized Procedures
  - 1.10.3. Recruitment of Individuals
    - 1.10.3.1. The Importance of Equine Aptitude
    - 1.10.3.2. How to Choose the Sample: Age, Breed, Feed and Fitness
  - 1.10.4. Research Site Planning
  - 1.10.5. Unforeseen Events and Problems During the Trial

# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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

## At TECH we use the Case Method

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.*



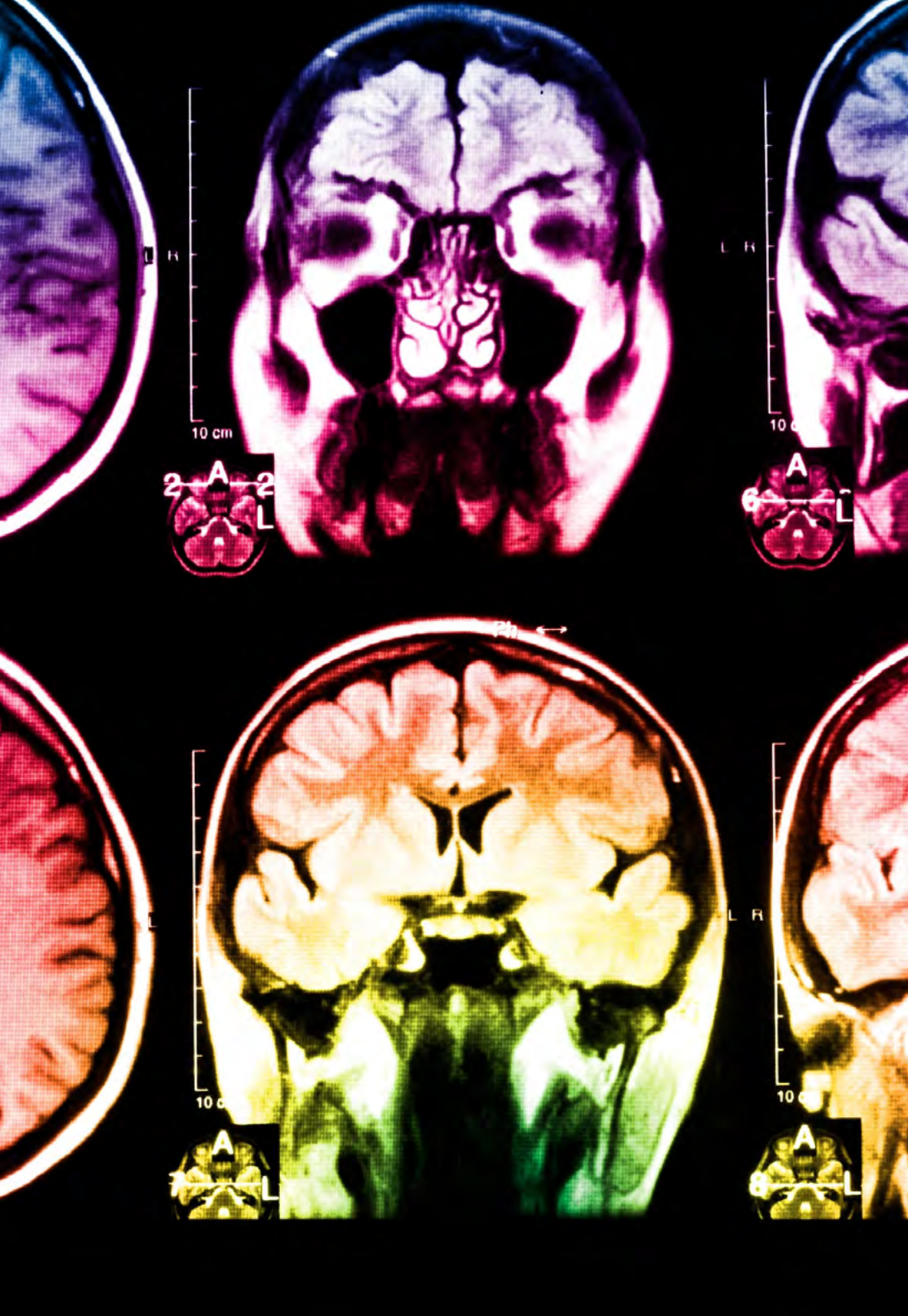
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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

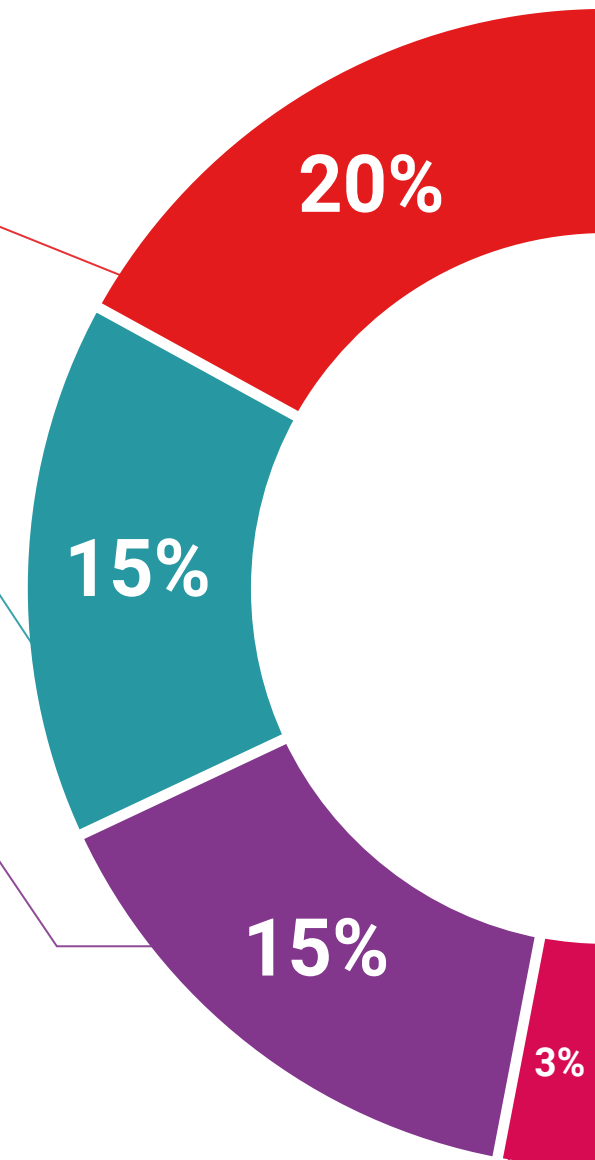
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

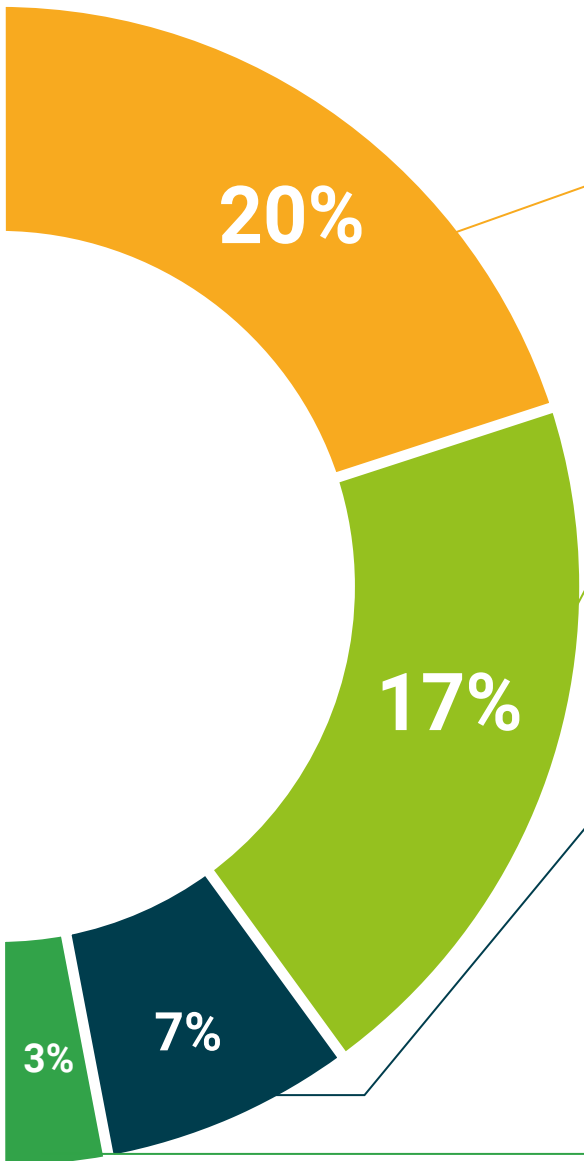
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.



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# Certificate

The Postgraduate Certificate in Veterinary Clinical Trials in Laboratories and Farms guarantees, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 **Postgraduate Certificate in Veterinary Clinical Trials in Laboratories and Farms** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Certificate in Veterinary Clinical Trials in Laboratories and Farms**  
Official N° of Hours: **150 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.



## Postgraduate Certificate

Veterinary Clinical Trials  
in Laboratories and  
Farms

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- » Certificate: **TECH Technological University**
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