Postgraduate Certificate
Advanced Epidemiology
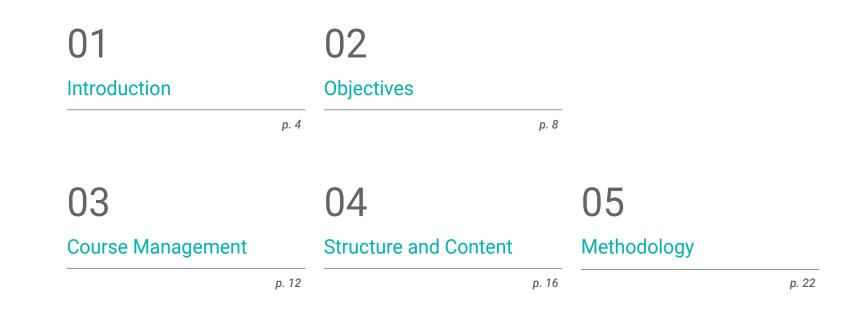
tech *technological university*

Postgraduate Certificate
Advanced Epidemiology

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

Website: **www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/advanced-epidemiology**

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01

Introduction

In the field of clinical trials, one of the most important disciplines is epidemiology, due to its relevance in the control of the most prevalent diseases in animal populations. To be able to carry out these analysis and study processes, advanced skills are necessary, which are increasingly in demand in the labor market. For this reason, TECH has designed a program that seeks to provide students with specific skills and knowledge in this area, through delve into topics such as Data Analysis, Population Structure or Diagnostic Epidemiology, among others. All this, through a 100% online modality that allows the student to organize their studies as they please and with the possibility of accessing all the content from any device with Internet connection.

A unique program in the educational market, with which you will become an expert in Advanced Epidemiology"

The evolution of Epidemiology has spanned centuries and has been essential to the successful control of countless animal diseases. In order to be able to work successfully and efficiently in this area, multiple skills and in-depth knowledge are necessary to guarantee an increase in the health of animal populations. This has meant that the profiles of professionals specialized in Advanced Epidemiology are increasingly in demand.

This is the reason why TECH has designed a Postgraduate Certificate in Advanced Epidemiology, to provide the students with the necessary skills to approach this discipline with full capacity and with the highest quality in the work carried out. For this purpose, throughout the plan of studies, topics such as Epidemiological Research, Sample Size, Epidemiological Statistics, Analytical Observational Studies or Historical Background, among others, are addressed.

All this, in a comfortable 100% online mode that gives the student total freedom to organize their studies and schedules, without limits of any kind and without the need to travel. In addition, with total availability of the materials from the first day and the possibility of accessing all the content from any device with an Internet connection, be it a tablet, computer, or cell phone.

This **Postgraduate Certificate in Advanced Epidemiology** 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 Advanced Epidemiology
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

You will be able to delve deeper into your knowledge of Causality Criteria or Animal Population Structures"

Enroll now and learn more about Disease Measurement in the Population"

Learn all the Types of Sampling and Selection Criteria, in a few weeks and without leaving home.

A program with which you will be able to perfect your skills in Measures of Effects and Measures of Impact.

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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.

02
Objectives

The objective of this program is to provide students with the specific skills and knowledge necessary to carry out their work in the field of epidemiology as effectively as possible. All this, through the most up-to-date and dynamic contents of the educational market.

Acquire new skills in Statistical Analysis and Selection of the Study Population, without time limits and in a 100% online modality"

General Objectives

- 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

♦ Develop autonomy to participate in research projects and scientific collaborations in the field of clinical trials and in interdisciplinary contexts

♦ Examine the different databases, their validation and the different tools for data management in clinical trials

♦ Apply problem solving techniques in the creation and development of clinical trials under the scientific method and new environments

♦ Properly elaborate structured projects focused on clinical and epidemiological trial activity

♦ Generate the integration of knowledge to face the formulation of judgments and conclusions generated in the studies

♦ Analyze the processes that allow the introduction of new veterinary medication in the market, as well as to incorporate the ethical principles involved

A unique opportunity to face a promising future in the veterinary field and stand out in one of the areas with the greatest potential"

03

Course Management

The management and teachers of this Postgraduate Certificate in Advanced Epidemiology have been selected to form a team of experts at the highest expectations. In this way, we have the most outstanding professionals, who have designed a complete, precise and cutting-edge content for the sector.

"

Solve any doubt or query at any time, thanks to the constant support of TECH's team of experts"

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

04
Structure and Content

TECH's team of experts has designed this plan of studies, based on their background and specific knowledge, as well as in the most efficient pedagogical methodology, Relearning, in which TECH is a pioneer. In this way, we can guarantee an optimal assimilation of the contents by the students, in an agile, precise, natural and progressive way.

Thanks to the Relearning pedagogical methodology, you will be able to save many hours of study, to dedicate them to your other day-to-day tasks"

Module 1. Applied Epidemiology in Veterinary Clinical Trials

1.1.   Veterinary Epidemiology
    1.1.1.   Historical Background.
    1.1.2.   Epidemiology and Its Uses
    1.1.3.   Causality Criteria
        1.1.3.1. Koch's Postulates
        1.1.3.2. Bradford Hill Criteria
        1.1.3.3. Evans' Postulates
    1.1.4.   Association Types
    1.1.5.   Epidemiological Research
    1.1.6.   Epidemiological Methods
        1.1.6.1. Qualitative Epidemiology
        1.1.6.2. Quantitative Epidemiology
    1.1.7.   Disease Determinants
        1.1.7.1. Factors: Agent, Host, and Environment
    1.1.8.   Pattern of Disease Progression
        1.1.8.1.Transmisión, Repertoires, Hosts and Vectors
        1.1.8.2. Biological Cycles
    1.1.9.   Emerging Diseases and Zoonoses
1.2.   Epidemiological Data Analysis
    1.2.1.   Data Collection
        1.2.1.1. Epidemiological Surveys
    1.2.2.   Nature of Data
    1.2.3.   Databases. Examples of Veterinary Databases and Information Systems
        1.2.3.1. Stata Databases
        1.2.3.2. SPSS Databases
    1.2.4.   Types of Variables
    1.2.5.   Interpretation of Results
        1.2.5.1. Pie Charts
        1.2.5.2. Bar Chart
        1.2.5.3. Histograms
        1.2.5.4. Stem and Leaves

"*Bet on your future with a unique program that will allow you to stand out in one of the most promising areas in the veterinary field*"

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.

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. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a veterinarian's professional practice.

" *Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"*

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

1. 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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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

With this methodology more than 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.

20%

15%

15%

3%

20%

17%

7%

3%

Expert-Led Case Studies and Case Analysis

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

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

Certificate

The Postgraduate Certificate in Advanced Epidemiology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Advanced Epidemiology** contains the most complete and up-to-date scientific 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 Advanced Epidemiology**

Official Nº of Hours: **150 h.**

tech technological university

Awards the followi ng
CERTIFICATE
to

Mr./Ms. _____, with identification number _____ .
For having passed and accredited the following progra   m

Postgraduate Certificate in Advanced Epidemiology

in

Corporate Finance and M&A in Business Consulting

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy .

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

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Unique TECH Code: AFWORD23S   techtitute.com/certificates

*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
Advanced Epidemiology

- » Modality: **online**
- » Duration: **12 months**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

Postgraduate Certificate
Advanced Epidemiology

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