# Postgraduate Diploma
## Thoracic Radiology in Small Animals

**tech** global university

# Postgraduate Diploma
## Thoracic Radiology in Small Animals

- » Modality: **online**
- » Duration: **6 monthst**
- » Certificate: **TECH Global University**
- » Credits: **18 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-thoracic-radiology-small-animals**

# Index

# 01
# Introduction

Thoracic Radiology is essential for the diagnosis of most of the pathologies affecting this anatomical region and, on many occasions, the radiological findings are sufficient to make a fairly accurate identification of the disease.

Therefore, veterinarians are looking for specialization in this field that will allow them to improve their skills and, thus, offer more effective care to the pets that come to the practice. An opportunity that TECH provides with this high level educational proposal.
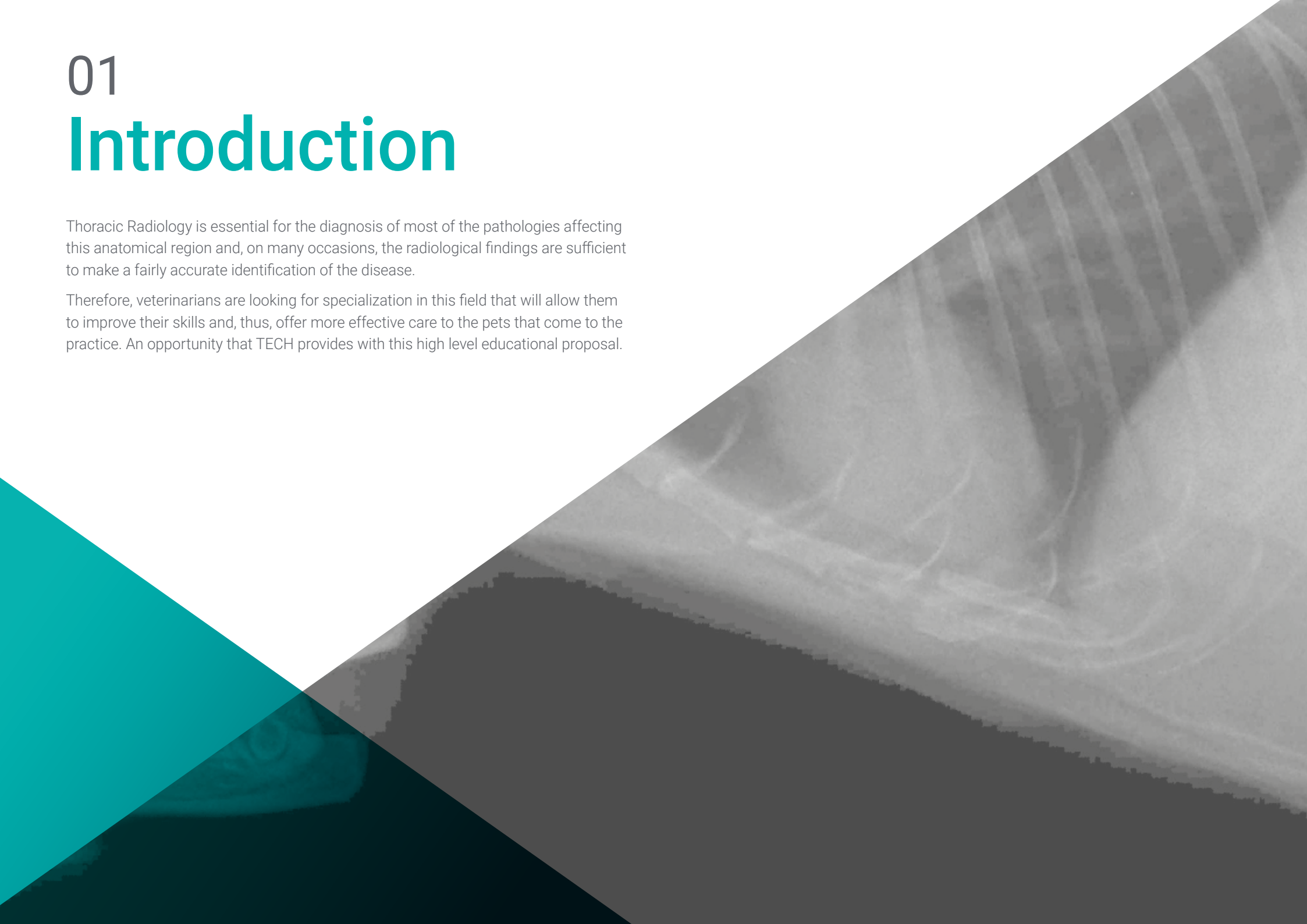
*The studies in Thoracic Radiology will allow veterinarians to obtain a higher qualification thanks to which they will have more guarantees to improve the health of animals"*

Improvements in diagnostic imaging techniques in the field of veterinary medicine make it necessary for teaching centers to propose new high level training courses, with fully up to date information and including the main new developments in this field. TECH always wants to be at the forefront in terms of training proposals and, therefore, this time we present this Postgraduate Diploma in Thoracic Radiology in Small Animals. A program designed by a team specialized in Veterinary Radiology, which aims to provide the keys to a successful practice.

Specifically, this Postgraduate Diploma covers from ionizing radiation for diagnostic purposes to radiodiagnosis of the cardiovascular and respiratory systems and other intrathoracic structures. As for cardiac radiology, it is necessary to take into account that it is very present in daily clinical practice and it is a challenge when it comes to interpreting it in an adequate manner. Therefore, this program deals with the identification of cardiac anatomy in radiological projections, an essential part of cardiac and vascular diagnosis.

In addition, it is necessary to work in the field of Thoracic Radiology with the highest technical quality, because the use of incorrect values, poor patient positioning or poor development technique can greatly affect the interpretation of the images. TECH has set out to teach all those details that can favor professional growth in this field.

In short, it is a program based on scientific evidence and daily practice, with all the nuances that each professional can contribute, so that the student can keep it in mind and compare it with the bibliography and enriched by the critical evaluation that every professional must have in mind.

Throughout this course, the student will learn about all the current approaches to the different challenges posed by his or her profession. A high level step that will become a process of improvement, not only on a professional level, but also on a personal level. Additionally, at TECH we have a social commitment: to help highly qualified professionals to update and to develop their personal, social and professional skills throughout the course of their studies. And, to do so, it will not only take you through the theoretical knowledge offered, but will show you another way of studying and learning, more organic, simpler and more efficient. It works to maintain motivation and to create passion for learning; it encourages thinking and the development of critical thinking.

This **Postgraduate Diploma in Thoracic Radiology in Small Animals** contains the most complete and up to date educational program on the market. The most important features of the program include:

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

*Advances in Thoracic Radiology make this Postgraduate Diploma a unique opportunity to enhance your training"*

*"The application of Thoracic Radiology is a thorough job, because any small error can lead to an erroneous diagnosis. If you want to specialize in this field, don't think twice and join TECH"*

*We give you all the necessary resources so that you can specialize in a field of high labor demand.*

*Our online format will allow you to study in a comfortable way from wherever you choose.*

Its teaching staff includes professionals belonging to the veterinary field, who contribute their work experience to this training, as well as renowned specialists from reference societies and prestigious universities.

Its Multimedia Content, elaborated with the latest Educational Technology, will allow the Professional a situated and contextual learning, that is to say, a Simulated Environment that will provide an immersive specialization programmed to train in real situations.

This program is designed around Problem Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative system of interactive videos made by renowned and experienced university experts in Veterinary Radiology.

## 02

# Objectives

The main objective of TECH when offering specific training in the veterinary field is that professionals are able to care for animals with full guarantees of success. For this reason, we offer a program with fully up to date information and in which you can find the latest practices.

*Your professional success is TECH success and, therefore, we will help you at all times to acquire high level training"*

## General Objectives

- Analyze how the clinical radiological image is formed
- Examine the drawbacks and distortions in the image obtained
- Establish the relationship between the radiological technique and the object to be X-rayed
- Determine the concept of homogeneous reproduction of the technology
- Identify and describe the radiological signs that are consistently observed
- Establish differential diagnoses based on what is observed
- Identify the most likely diagnosis and reason it out
- Examination of other imaging tests could be performed to refine the diagnosis
- Prepare a radiological report and make a diagnostic judgement
- Establish the most relevant anatomical details for a correct assessment of the thoracic structures
- Define the criteria for a correct radiographic technique of the thorax
- Examine the physiological and pathological image of the different structures that can be found in the thorax

*A path to achieve training and professional growth that will propel you towards a greater level of competitiveness in the employment market"*
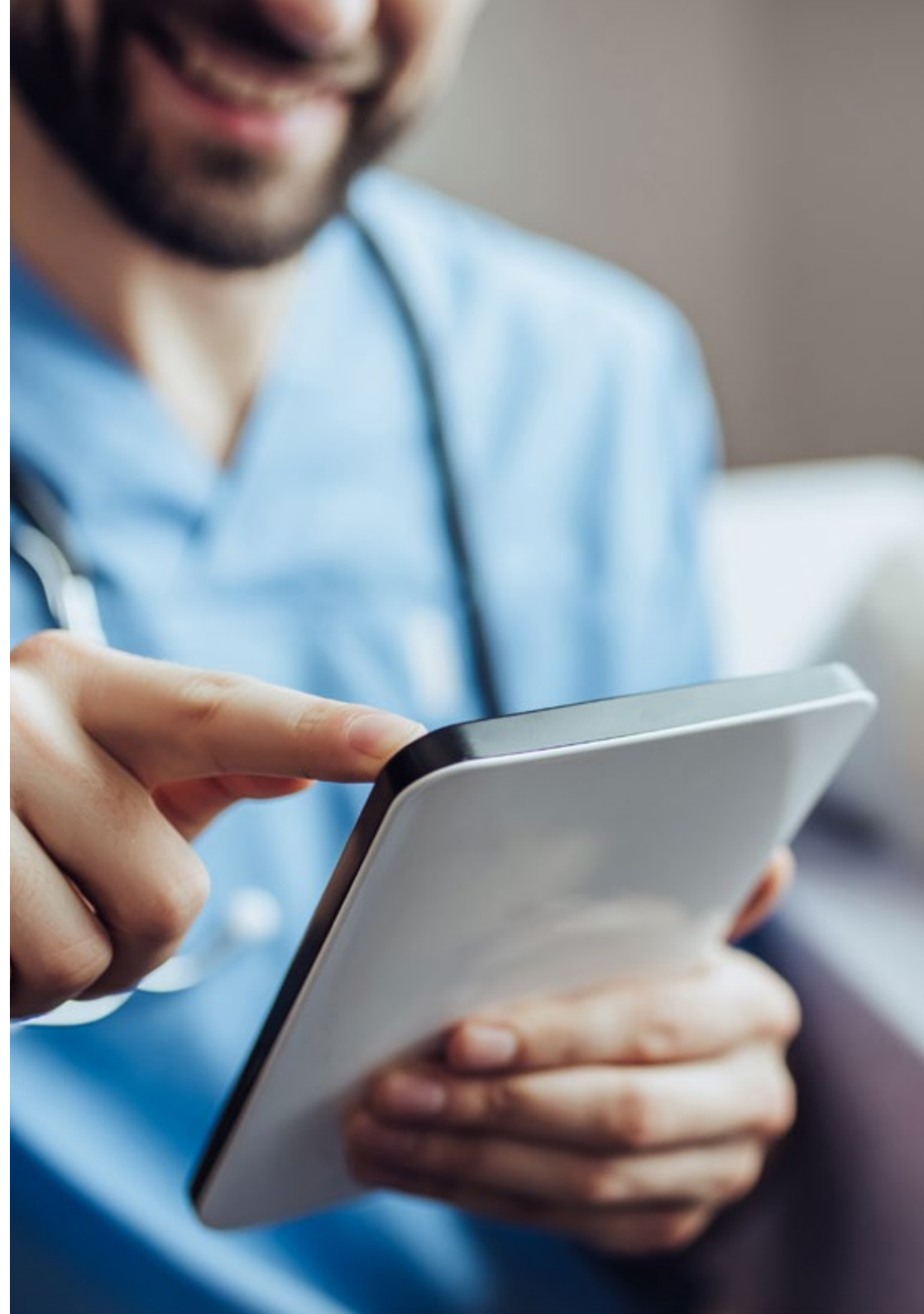
## Specific Objectives

**Module 1.**

- Analyze the Bremsstrahlung effect
- Interpret the cause of radiological defects and distortions
- Reproduce the systematic interpretation of the radiological image
- Differentiate the different types of radiological image processing
- Examine the concept of radiological distortion, the concept of pareidolia and the concept of limiting factor

**Module 2.**

- Identify enlargements of the different cardiac chambers
- Examine the anatomy of the large vessels
- Determine the limits of radiology to assess cardiac function
- Analyze normal morphological variations as a function of the cardiac cycle
- List the projections necessary to visualize the cardiac silhouette optimally
- Address the assessment of arteries and veins of the pulmonary lobes
- Identify radiographic signs of cardiac alterations

**Module 3.**

- Determine the main limiting factors in the interpretation of thoracic radiographs
- Determine which projection(s) are the most appropriate according to the reason for the radiographic study
- Examine the normal and pathologic radiological image of the rib cage, the mediastinum, and its structures and of the structures present inside the thoracic cage
- Analyze the different pulmonary patterns and their main differential diagnoses
- Establish the radiological picture of the main congenital diseases affecting the thorax

## 03
# Course Management

The teaching team, formed by professionals of reference in the veterinary field and with years of experience both in consultation and teaching, will provide detailed information in Veterinary Radiology in Small Animals. A unique opportunity that will help you grow professionally.

"
*The best professors are at the best university. Don't miss the opportunity to train with them"*

## Management

Dr. Gómez Poveda, Bárbara

- Parque Grande Veterinary Clinic. General veterinary
- Veterinary emergencies Las Rozas, Madrid. Emergency and hospitalization service
- Barvet – Veterinary at home Mobile Veterinary Director. Madrid
- Parla Sur Veterinary Hospital. Emergency and hospitalization service
- Veterinary Degree. Complutense University of Madrid
- Postgraduate in Small Animal Surgery (GPCert SAS). Madrid Improve International
- Online postgraduate course in Small Animal Clinic. Autonomous University of Barcelona

## Professors

**Dr. Conde Torrente, María Isabel**

- Head of the Diagnostic Imaging and Cardiology Service at Alcor Veterinary Hospital Currently
- Degree in Veterinary Medicine from the University of Santiago de Compostela in 2012 with a certified European degree
- Advanced Postgraduate Course in Diagnostic Imaging (Computerized Axial Tomography). TCESMD. 2019
- Postgraduate in Diagnostic Imaging (GPCert- DI) 2016
- Training courses on clinical and laboratory analysis for veterinarians at the Alberto Alcocer Veterinary Hospital
- Medical Director and head of the Advanced Diagnostic Imaging Service of Peñagrande Group. 2017-2019
- Head of the Diagnostic Imaging Service at Mejorada Veterinary Center. 2016-2017
- Responsible for diagnostic services at Alberto Alcocer Veterinary Hospital. 2013-2016

**Dr. Nieto Aldeano, Damián**

- Responsible for the Radiology service.  Las Tablas and Diagnosfera (Madrid)
- Graduated in 2013 from the University of Murcia. Academic Training
- General Practitioner Certificate in Diagnostic Imaging by the ESVPS in 2018.
- Intern in Veterinary Hospital "Città di Pavia" in Pavia (Italy)
- Radiology and ultrasound, internal medicine, interpretation of analytical tests, hospitalization, anesthesia, on-site and off-site emergencies. Clinics and hospitals in the country
- Course in abdominal ultrasound in small animals
- Course in Cytology of internal organs, eyes, ears and ganglia

**Dr. Lázaro González, María**

- Degree in Veterinary Medicine from the Alfonso X El Sabio University Madrid, 2018
- GPCert in feline medicine 2020
- Postgraduate in Diagnostic Imaging
- Postgraduate in Feline Medicine
- Internship in animal anatomy during the veterinary degree program.
- Responsible for the emergency, internal medicine, radiology and ultrasound services at Gattos Hospital Feline Clinical Center (2018-2020)

**Dr. Calzado Sánchez, Isabel**

- Veterinarian specialized in exotic animals. HV Exotic Animals 24h and HV Gwana Vet General veterinarian in hospitals specializing in exotic animals. Internal medicine, hospitalization, emergency and laboratory services
- Small animal veterinarian. CV Sansepet, HV Miramadrid. General veterinarian in dog and cat clinics. Internal medicine, preventive medicine, diagnostic imaging and in charge of the exotic animal area
- Veterinary Degree. Alfonso X el Sabio University
- General Practitioner in exotic animals. ISVPS Improve International

# 04
# Structure and Content

The contents of this Postgraduate Diploma in Thoracic Radiology in Small Animals have been designed by a team of university experts, backed by their years of experience. In this way, they have been in charge of programming a totally up to date syllabus aimed at the professional of the 21st century, who demands high quality training and knowledge of the main innovations in the field.
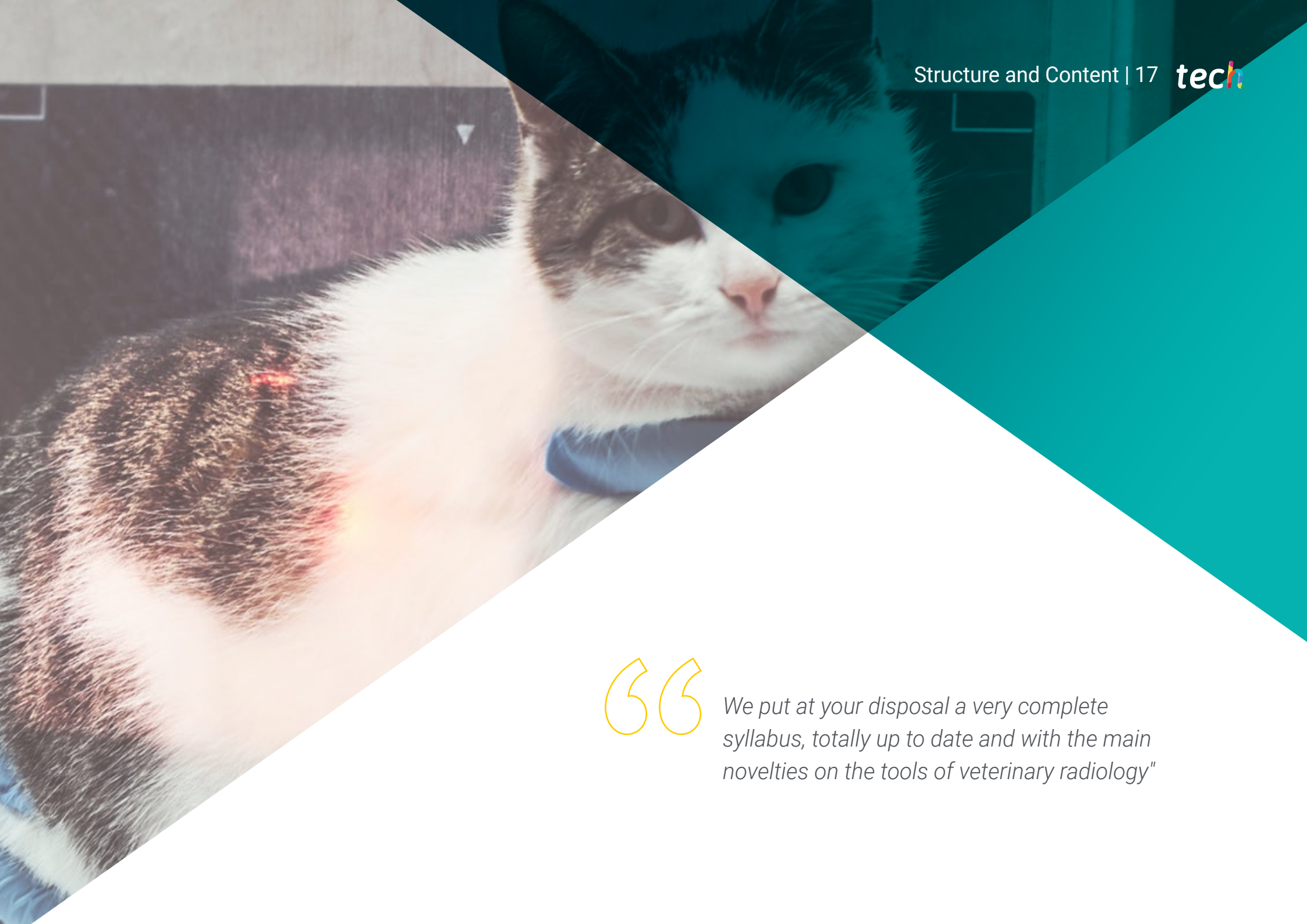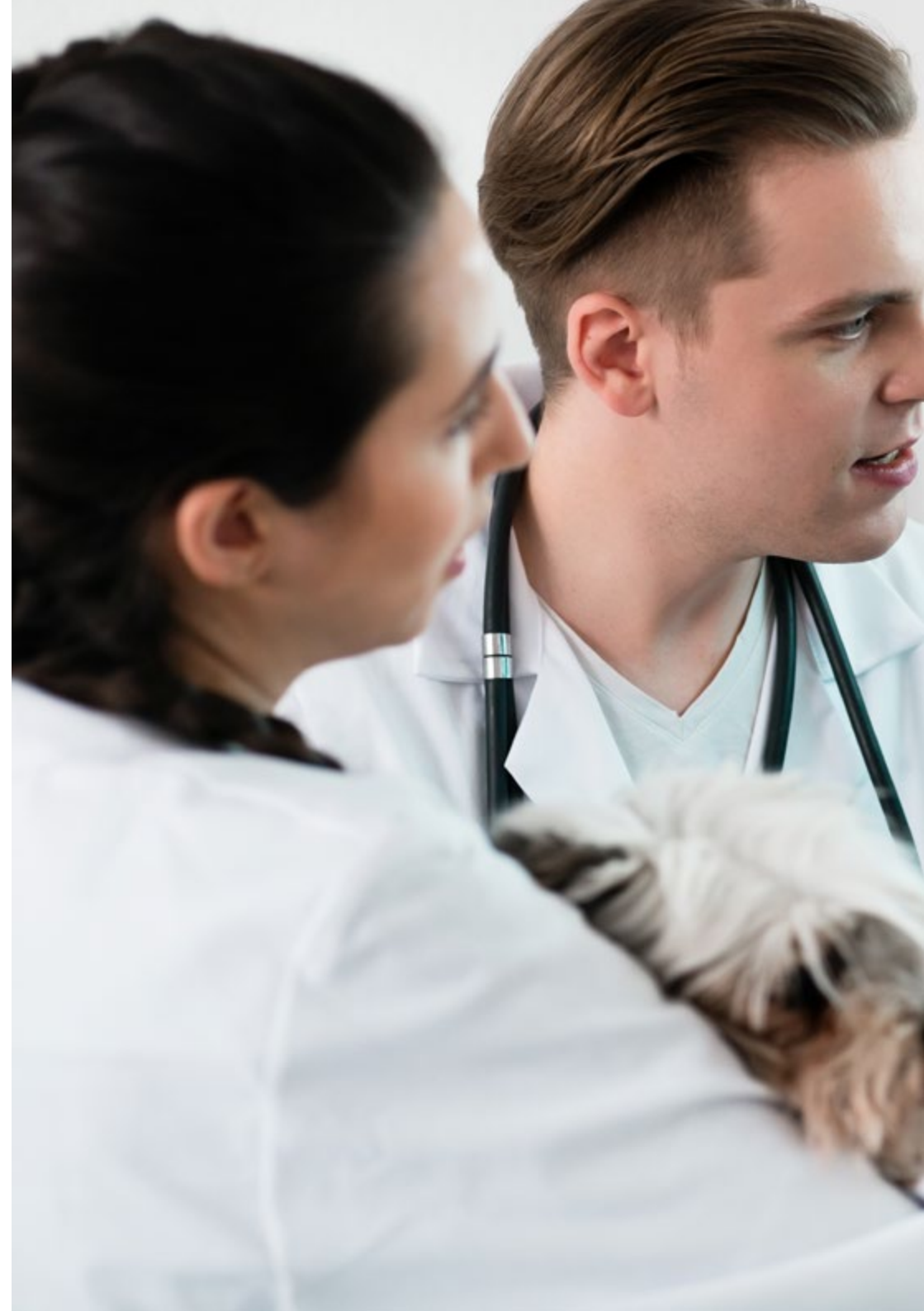
*We put at your disposal a very complete syllabus, totally up to date and with the main novelties on the tools of veterinary radiology"*

## Module 1. Ionizing Radiation for Diagnostic Purposes

**Module 2.** Radiodiagnosis of the Cardiovascular System

## Module 3. Radiodiagnostics of the Respiratory System and Other Intrathoracic Structures

*A comprehensive teaching program, structured in well developed teaching units, oriented towards learning that is compatible with your personal and professional life"*

# 05
# Methodology

This training program offers 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 Harvard 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.

**20%**

### 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.

**15%**

### 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 multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".

**15%**

**3%**

### 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%**

**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 your 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 Diploma in Thoracic Radiology in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.

*Include in your CV a Postgraduate Diploma in Thoracic Radiology in Small Animals: a highly qualified added value for any professional in this area"*

This program will allow you to obtain your **Postgraduate Diploma in Thoracic Radiology in Small Animals** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

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

Title: **Postgraduate Diploma in Thoracic Radiology in Small Animals**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**

tech global university

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

**Postgraduate Diploma in Thoracic Radiology in Small Animals**

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

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

Dr. Pedro Navarro Illana
Rector

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

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

# tech global university

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