

Postgraduate Certificate

Radiology of the Thoracic
Cage, Respiratory System
and Other Intrathoracic
Structures in Small Animals





Postgraduate Certificate

Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures in Small Animals

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

Website: www.techtute.com/us/veterinary-medicine/postgraduate-certificate/radiology-thoracic-cage-respiratory-system-other-intrathoracic-structures-small-animals

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01

Introduction

The performance of radiological tests in veterinary medicine requires complex work on the part of the professionals, since they must have specific skills that allow them to perform the correct handling and positioning of the animal to avoid possible anomalies in the results of the tests, but it is also necessary to perform an adequate interpretation of the tests. With this program TECH wants to specialize veterinarians in the use of Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures in Small Animals.





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Veterinarians with a high qualification in thoracic radiology will be better trained to care for animals with any pathology in that anatomical area"

Chest radiography 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 diagnosis. In these cases, it is very important to take the utmost care with the technical quality of the chest X-rays. The use of incorrect values, poor patient positioning or poor imaging technique can greatly affect the interpretation of the images.

Likewise, it is worth mentioning the importance that digital radiology is acquiring, with which a higher contrast resolution is obtained than with the analog ones, which, especially in the thorax, translates into a better definition of some anatomical structures, such as the pulmonary vessels or the walls of the bronchial tubes of greater diameter. All these advances that are happening in this field, are collected in this very complete program, with the aim of offering veterinarians a specific high-level training.

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.

Thus, throughout this program, the students will go through all the current approaches to the different challenges of their profession. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level. In addition, TECH assumes a social commitment: to help the updating of highly qualified professionals and to develop their personal, social and work skills during the development of the same. 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 a passion for learning; it encourages thinking and the development of critical thinking.

This **Postgraduate Certificate in Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures 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 case studies presented by 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 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 specific program in Thoracic Radiology that will help you grow professionally in a short period of time”

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From the moment you enroll with us, you will be able to access all the contents of the program from any device with an internet connection”

Its teaching staff includes professionals belonging to the veterinary field, who contribute their work experience to this program, as well as renowned specialists from reference 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 training programmed to train in real situations.

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

Study in a simulated environment and train yourself effectively to face real situations in complete confidence.

Combine your studies with the rest of your daily obligations thanks to our 100% online format.



02 Objectives

TECH's main objective in 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.





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If your goal is to achieve academic excellence, don't think twice. Join TECH's educational community”



General Objectives

- ♦ 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 way of training and professional growth that will drive you towards greater competitiveness in the labor market”





Specific Objectives

- ◆ 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.



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We have the best teaching team in the current educational landscape"

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



04

Structure and Content

The contents of this Postgraduate Certificate in Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures 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 educational quality and knowledge of the main innovations in the field.



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Our comprehensive academic program will provide you with the knowledge you need to develop successfully in your practice”

Module 1. Radiodiagnostics of the Respiratory System and Other Intrathoracic Structures

- 1.1. Positioning for Thorax Radiology
 - 1.1.1. Ventrodorsal and Dorsoventral Positioning
 - 1.1.2. Right and Left Laterolateral Positioning
- 1.2. Physiological Imaging of the Thorax
 - 1.2.1. Trachea Physiological Imaging
 - 1.2.2. Mediastinum Physiological Imaging
- 1.3. Pathologic Imaging in Thoracic Radiology
 - 1.3.1. Alveolar Pattern
 - 1.3.2. Bronchial Pattern
 - 1.3.3. Interstitial Pattern
 - 1.3.4. Vascular Pattern
- 1.4. Radiological Diagnosis of Acquired Pulmonary Diseases I
 - 1.4.1. Structural Pathologies
 - 1.4.2. Infectious Pathologies
- 1.5. Radiological Diagnosis of Acquired Pulmonary Diseases II
 - 1.5.1. Inflammatory Pathology
 - 1.5.2. Neoplasms
- 1.6. Feline-specific Thoracic Radiology
 - 1.6.1. Radiology of the Heart in the Cat
 - 1.6.1.1. Radiographic Anatomy of the Heart
 - 1.6.1.2. Radiographic Diagnosis of Cardiac Pathologies
 - 1.6.2. Radiology of the Thoracic Wall and Diaphragm of the Cat
 - 1.6.2.1. Anatomy of the Thoracic Cage
 - 1.6.2.2. Radiographic Diagnosis of Thoracic Wall and Diaphragm Pathologies
 - 1.6.2.2.1. Congenital Skeletal Malformations
 - 1.6.2.2.2. Fractures
 - 1.6.2.2.3. Neoplasms
 - 1.6.2.2.4. Alterations of the Diaphragm
 - 1.6.3. Radiology of the Pleura and Pleural Cavity of the Cat



- 1.6.3.1. Radiographic Diagnosis of the Pleura and Pleural Cavity Pathologies
 - 1.6.3.1.1. Pleural Effusion
 - 1.6.3.1.2. Pneumothorax
 - 1.6.3.1.3. Hydropneumothorax
 - 1.6.3.1.4. Pleural Masses
- 1.6.4. Radiology of the Cat Mediastinum
 - 1.6.4.1. Radiographic Anatomy of the Mediastinum
 - 1.6.4.2. Radiographic Diagnosis of Pathologies of the Mediastinum and the Organs it Contains
 - 1.6.4.2.1. Pneumomediastinum
 - 1.6.4.2.2. Mediastinal Masses
 - 1.6.4.2.3. Esophageal Diseases
 - 1.6.4.2.4. Tracheal Diseases
- 1.6.5. Pulmonary Radiology of the Cat
 - 1.6.5.1. Normal Pulmonary Radiologic Anatomy
 - 1.6.5.2. Radiographic Diagnosis of Pulmonary Pathologies
 - 1.6.5.2.1. Pulmonary Patterns
 - 1.6.5.2.2. Decreased Pulmonary Opacity
- 1.7. Radiology of the Mediastinum
 - 1.7.1. Radiographic Anatomy of the Mediastinum
 - 1.7.2. Mediastinal Effusion
 - 1.7.3. Pneumomediastinum
 - 1.7.4. Mediastinal Masses
 - 1.7.5. Mediastinal Deviation
- 1.8. Congenital Thoracic Diseases
 - 1.8.1. Patent Ductus Arteriosus
 - 1.8.2. Pulmonary Stenosis
 - 1.8.3. Aortic Stenosis
 - 1.8.4. Ventricular Septal Defect
 - 1.8.5. Tetralogy of Fallot
- 1.9. Oncology
 - 1.9.1. Pleural Masses

- 1.9.2. Mediastinal Masses
- 1.9.3. Cardiac Tumors
- 1.9.4. Pulmonary Tumors
- 1.10. Radiology of the Thoracic Cage
 - 1.10.1. Anatomy Radiologic of the Thoracic Cage
 - 1.10.2. Radiological Alterations of the Ribs
 - 1.10.3. Radiological Alterations of the Sternum



Achieve professional excellence after completing this Postgraduate Certificate of the highest teaching quality"

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.





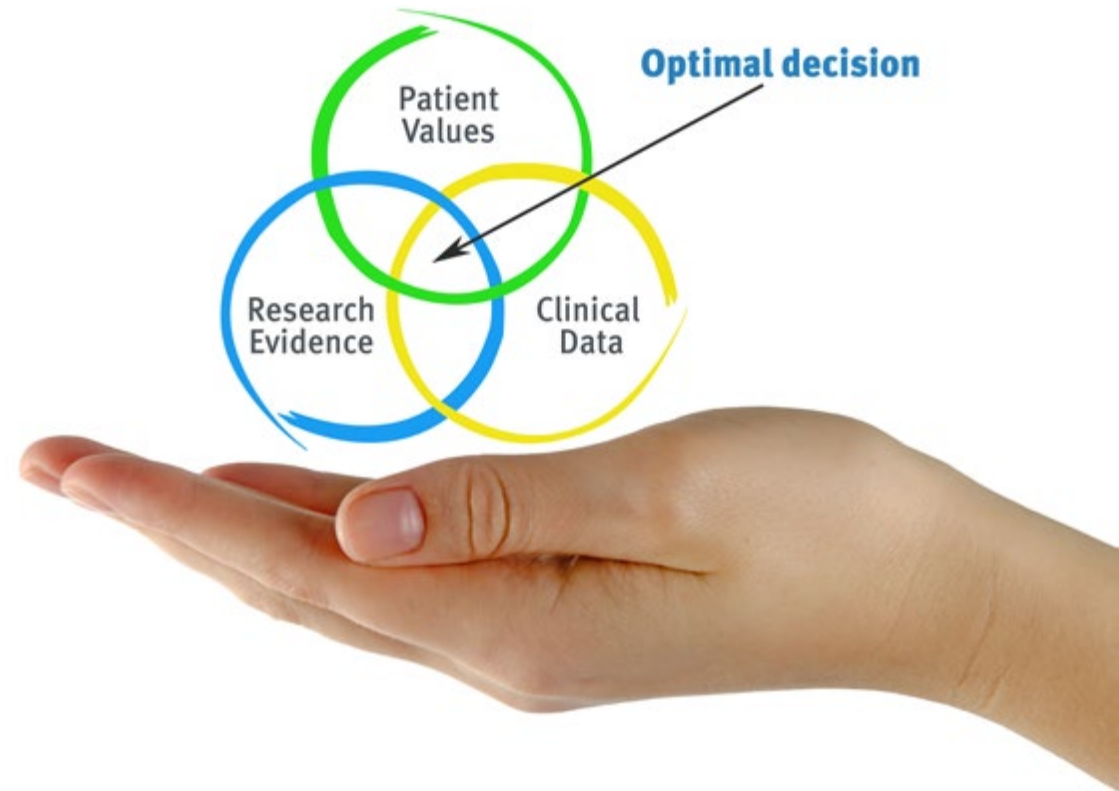
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization”

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. 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.

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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 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.

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

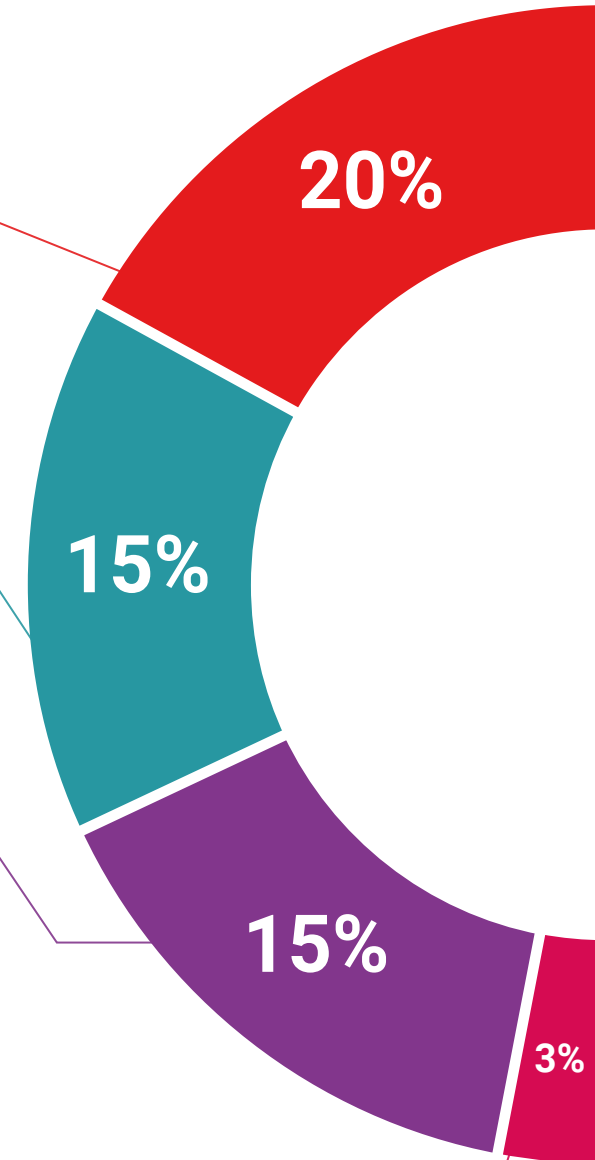
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

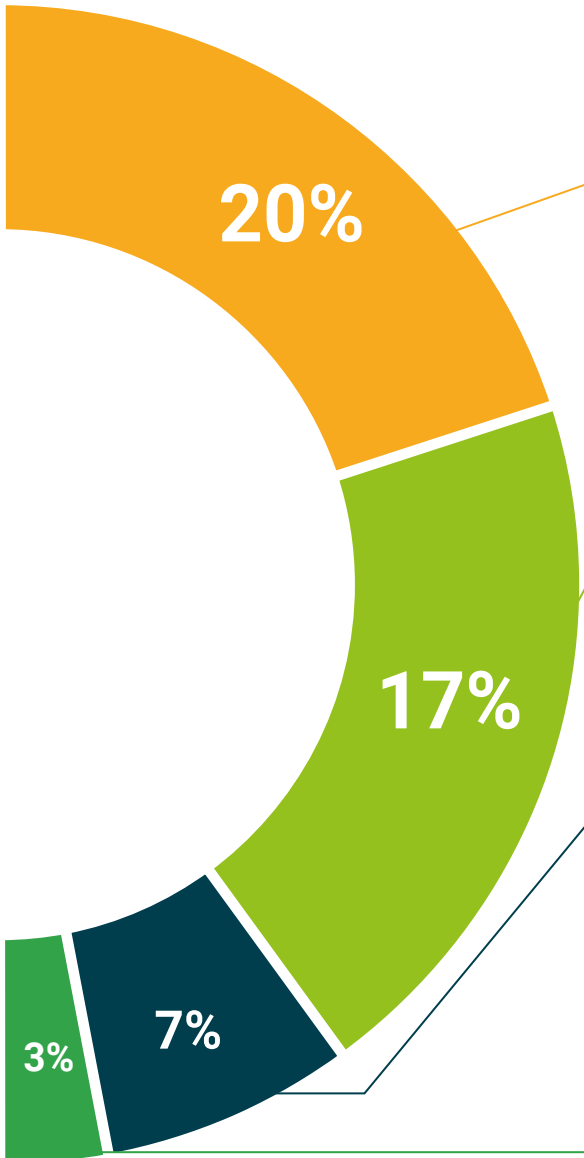
This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".



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 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.



06 Certificate

The Postgraduate Certificate in Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures in Small Animals guarantees, in addition to the most rigorous and up-to-date training, access to a certificate issued by TECH Global University.



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Include in your specialization this Postgraduate Certificate in Radiology of the The Thoracic Cage, Respiratory System and Other Intrathoracic Structures in Small Animals: a highly qualified added value for any professional in this field"

This program will allow you to obtain your **Postgraduate Certificate in Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures 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 Certificate in Radiology of the Thoracic Cage, Respiratory System and Other Intrathoracic Structures in Small Animals**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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