Postgraduate Certificate
Basic Radiological Interpretation in Small Animals

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Postgraduate Certificate
Basic Radiological Interpretation in Small Animals

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

Website: **www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/basic-radiological-interpretation-small-animals**
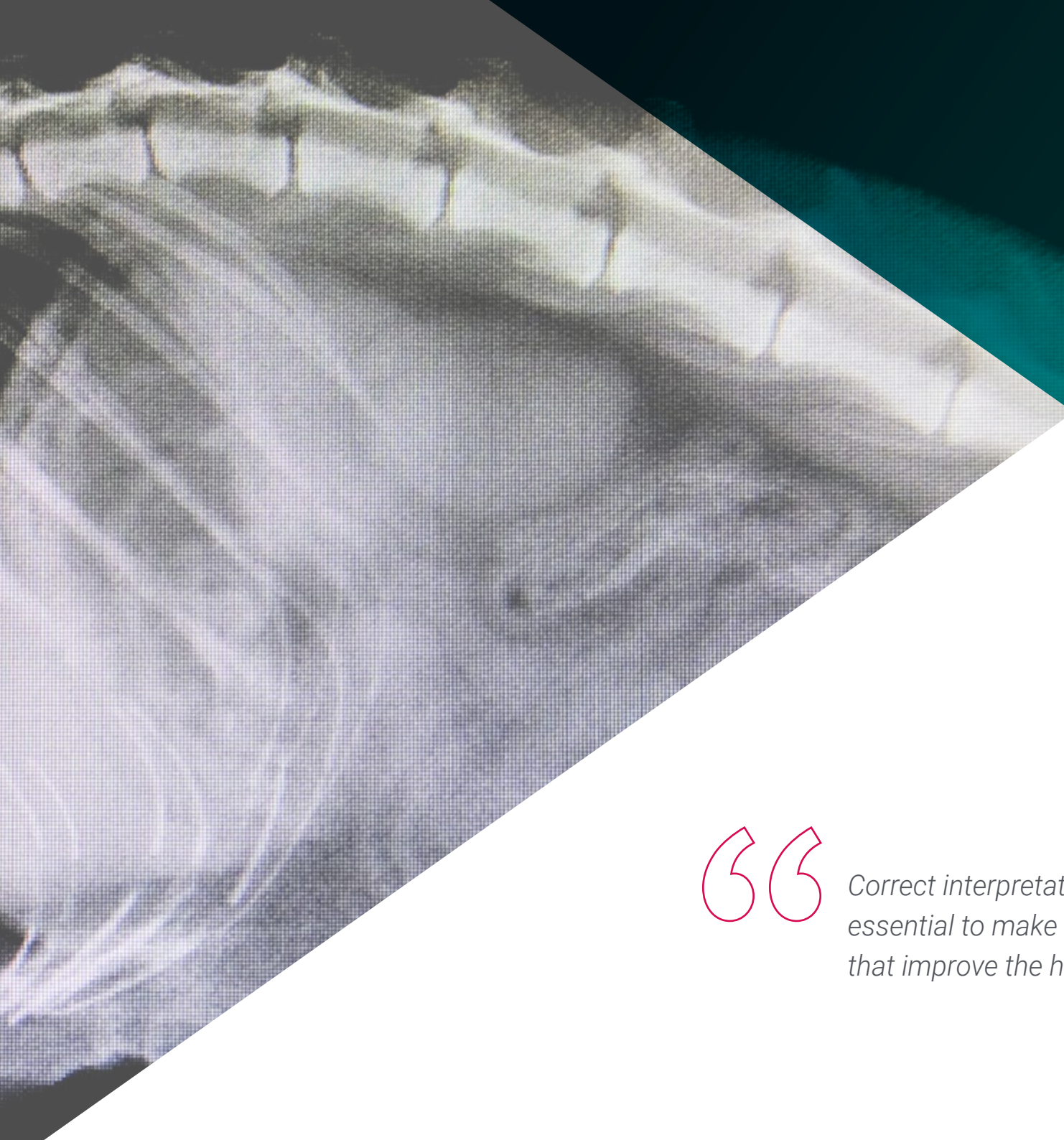
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01
Introduction

Veterinarians who perform radiological tests as part of their day-to-day practice must have specific training to enable them to interpret these tests accurately, avoiding possible errors that lead to misdiagnosis. For this reason, TECH proposes this academic program, in which you will find the most practical and relevant information for your daily work.

Correct interpretation of veterinary radiology is essential to make accurate and early diagnoses that improve the health of our pets"

The main objective of the course is to achieve a specialization in the veterinarian that avoids any type of error when performing an analysis of diagnostic imaging tests. For this purpose, a high-level teaching team has selected and created the most relevant information in this field.

It should be borne in mind that ionizing radiation is the source of the clinical image recognizable by the technician or specialist. However, there is a minimal portion of them that participate in its formation. Part of these radiations are generated by the inefficiency of the procedure and distort the final image obtained, so it is necessary to work very carefully in this area. On the other hand, there are many different procedures that have evolved over the years to perfect the technique and should be recognized by professionals.

Precisely, distortions in radiological image formation are addressed in depth in this training. For this purpose, the way to make the image obtained have a direct and predictable correlation with the patient's anatomy is presented. It also develops all the necessary information to differentiate the different radiological techniques for the different organs and offers specialized knowledge on the handling of the radiology equipment.

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. In addition, TECH assumes a social commitment: to help the updating of highly qualified professionals and to develop their personal, social and labor competencies 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 Basic Radiological Interpretation 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

We offer you an innovative program in which you will find real case studies that will allow you to carry out a more contextual study"

" *We offer you the perfect combination of theory and practice so that you have all the necessary resources at your disposal to allow you a deep and exhaustive study of the subject"*

Our multimedia methodology allows our students to perform interactive activities to learn in a more practical way.

We give you the opportunity to organize your study time thanks to the freedom of access to the campus that you will have once you have enrolled.

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.

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 an immersive training program designed 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 experts in Veterinary Radiology.

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.

If your goal is to increase your training thanks to the best academic offer of the moment, look no further. At TECH, we offer you everything you need"

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

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

Specific Objectives

- 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

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 on veterinary radiology in small animals. A unique opportunity that will help you grow professionally.

A team of specialists in veterinary radiology has been in charge of selecting and creating the most relevant content on this subject"

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. 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

Structure and Content

The contents of this Postgraduate Certificate in Basic Radiological Interpretation 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.
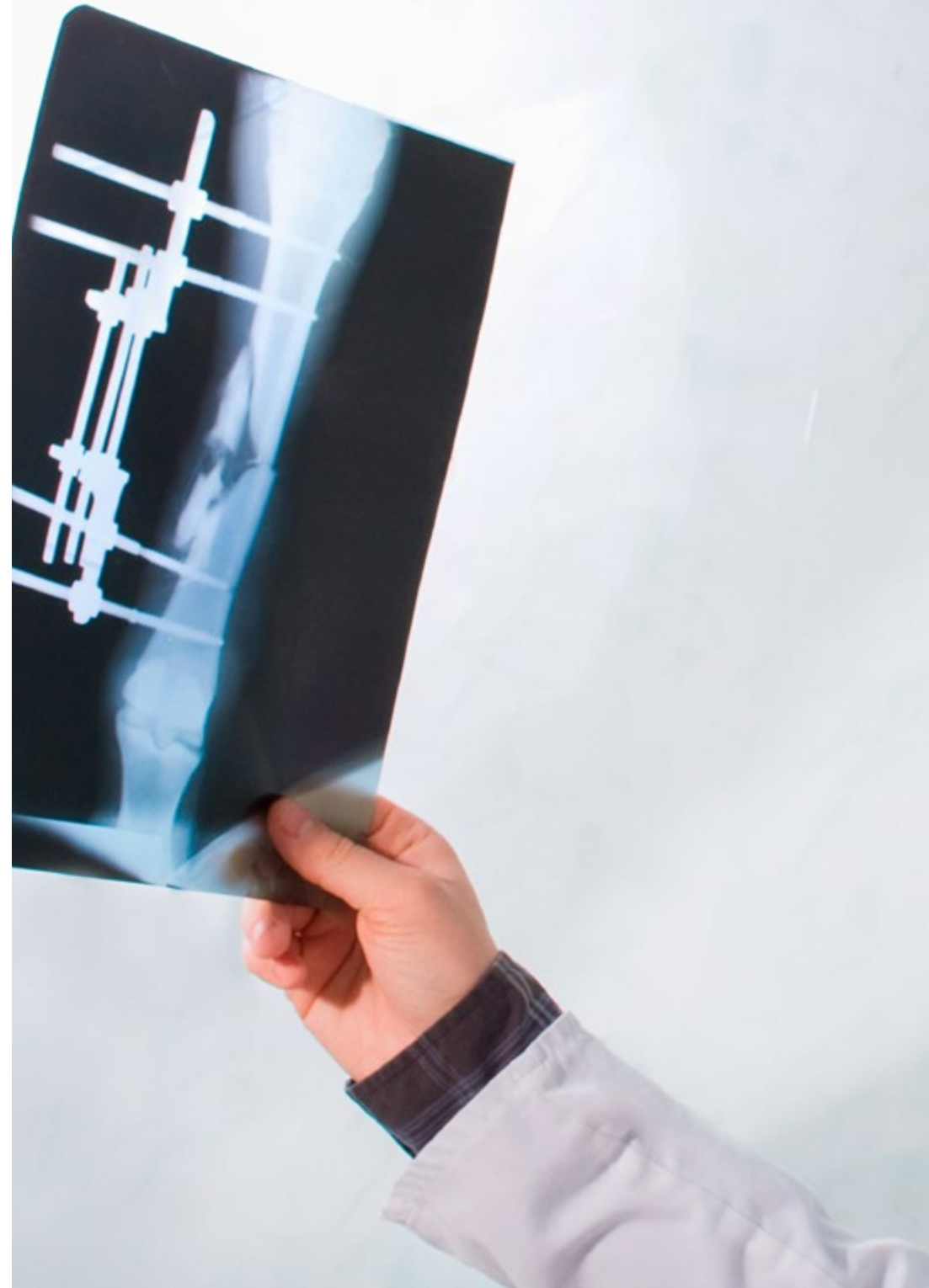
Our syllabus has been created following the criteria of excellence set by our own institution and demanded by today's society"

Module 1. Ionizing Radiation for Diagnostic Purposes

1.1. General Principles
    1.1.1. Electron Acceleration
    1.1.2. Electrical Current Intensity
    1.1.3. The Anode, Where the Anions Collide
1.2. Photon Formation with Diagnostic Effects
    1.2.1. Types of Photons
    1.2.2. Photon Energy
    1.2.3. Orientation of Emitted Photons
    1.2.4. Scattering of the Energy Generated by Photons
1.3. Scattered Radiation
    1.3.1. Anode Dispersion
    1.3.2. Patient Dispersion
    1.3.3. Implications for Clinical Imaging
    1.3.4. Dispersion of Objects in the Radiodiagnostic Room
1.4. The Formation of Radiological Imaging
    1.4.1. Radiological Chassis
    1.4.2. Radiological Films
    1.4.3. RC Processing
    1.4.4. DR Processing
1.5. Radiological Film Processing
    1.5.1. Development in Automatic Processors and Development Vats
    1.5.2. Liquid Recycling
    1.5.3. Processing with Digital Chassis
    1.5.4. Digital Direct Processing
1.6. Factors Affecting Radiological Imaging
    1.6.1. Time
    1.6.2. Voltage
    1.6.3. Amperage
1.7. Alterations in the Perception of the Radiological Image
    1.7.1. Pareidolia
    1.7.2. Magnification
    1.7.3. Distortion

Give a boost to your career thanks to the opportunity offered by TECH with this high academic level Postgraduate Certificate"

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.

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.
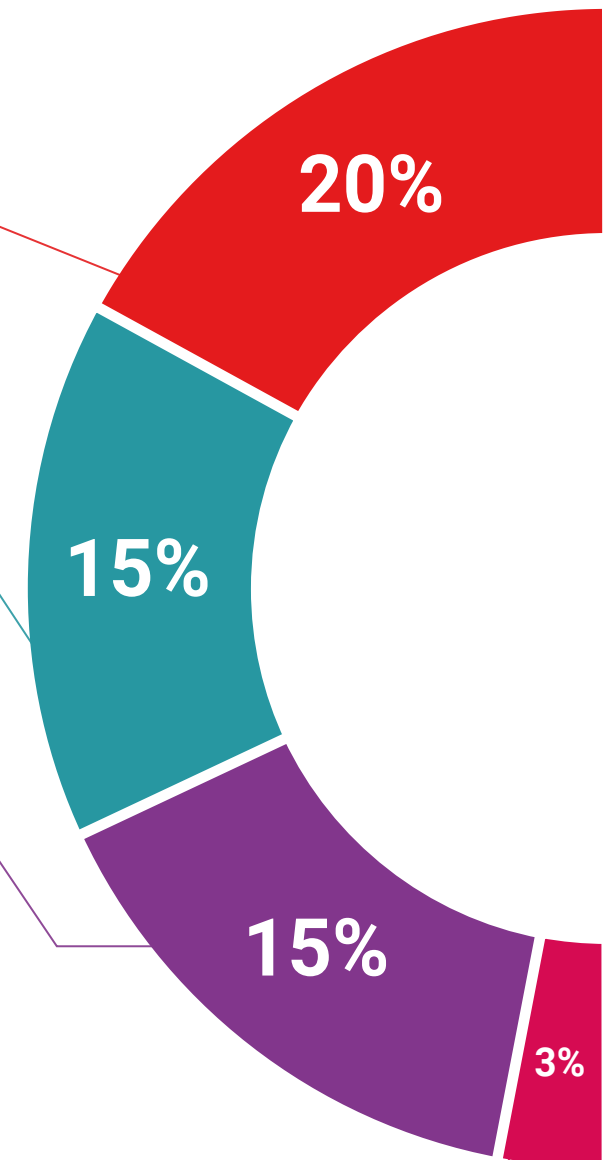
Interactive Summaries

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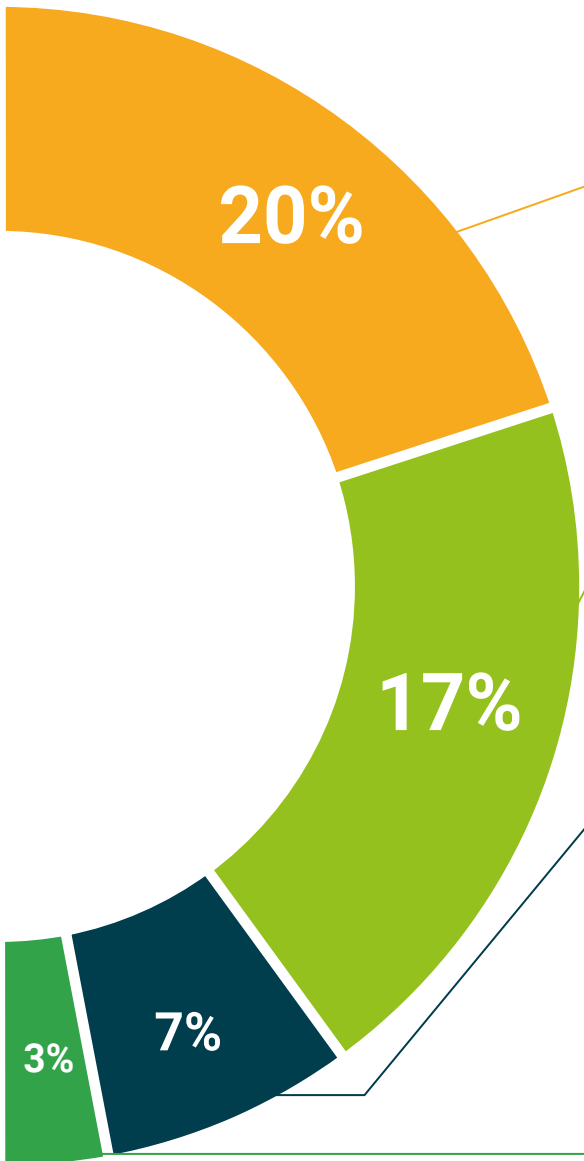
This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".

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.

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 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

This Postgraduate Certificate in Basic Radiological Interpretation in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

Include in your CV the Postgraduate Certificate in Basic Radiological Interpretation 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 Basic Radiological Interpretation 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 Basic Radiological Interpretation in Small Animals**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

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

Postgraduate Certificate in Basic Radiological Interpretation in Small Animals

This is a program of 180 hours of duration equivalent to 6 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.

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