



# Postgraduate Certificate Radiological Diagnosis of Traumatological Diseases in Small Animals

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/in/veterinary-medicine/postgraduate-certificate/radiological-diagnosis-traumatological-diseases-small-animals

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# tech 06 | Introduction

In veterinary orthopedics and traumatology, radiography is an essential tool to obtain the diagnosis of most bone pathologies, as a unique tool or in a complementary way with other imaging methods. For this reason, veterinary clinics have been updating the existing material in this area and, of course, they must also update the knowledge of the professionals who must use them.

Thus, more and more veterinary centers have access to digital radiology equipment, which offers images with greater diagnostic value and quality. Thus, knowing the projections to obtain the desired image and the interpretation of the same will help to propose the appropriate treatments and to see its evolution in the animal.

Under this premise, TECH proposes the realization of this Postgraduate Certificate in Radiological Diagnosis of Traumatological Diseases in Small Animals. A unique program developed by a team of experts, who have brought together the main advances in this field to improve the training of veterinarians.

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 work skills throughout the duration of the course. 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, encourages thinking and the development of critical thinking.

This Postgraduate Certificate in Radiological Diagnosis of Traumatological Diseases 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 the self-assessment process can be carried out 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 work
- Content that is accessible from any fixed or portable device with an Internet connection



A complete academic program that will give you the keys to specialize in Radiological Diagnosis of Traumatological Diseases"



Our 100% online format offers you the possibility to study from wherever you choose, without the need to travel to a physical center"

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.

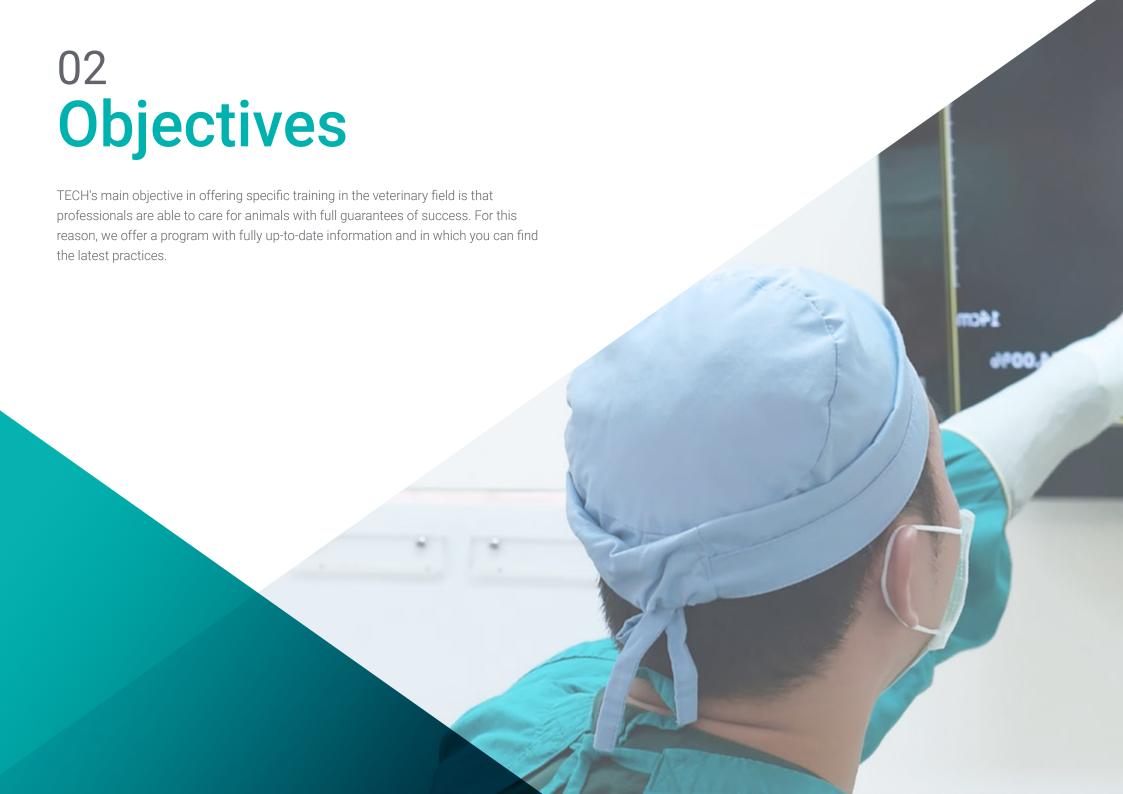
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

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 experts in Veterinary Radiology.

Make a deep and complete study on this subject thanks to the learning proposal offered by TECH.

Our didactic methodology will allow you to train with simulated cases as if you were facing real situations.







# tech 10 | Objectives



# **General Objectives**

- Determine radiographic projections and positioning to obtain images with greater diagnostic value
- Examine the radiographic anatomy of the forelimb and hind limb, looking at the differences between species and breeds
- Identify the different types of fractures, treatment possibilities and assess their evolution and possible complications with a radiological study
- Differentiate a physiological bone tissue from a pathological one, and we will know what steps to follow to reach a diagnosis Identify pathological fractures
- Determine the limitations of radiological studies for the diagnosis of certain orthopedic pathologies



Advance in your profession by paving your way in what is shaping up to be one of the most exciting fields in medicine today and in the future"







# **Specific Objectives**

- Determine how to differentiate stable/unstable hip fractures and consider medical or surgical treatment
- Recognize femur fractures, and their importance in early diagnosis to avoid serious complications
- Examine the structures of the skull, jaw and teeth, emphasizing the importance of correct projections and showing the limitations of radiology in the structures of the skull
- Identify tibial fractures
- Analyze the importance of radiographs in the forelimb by examining its anatomy and analyzing the most typical fractures in this area
- Examine radiologically the different pathologies of the distal extremity
- Improve radiological positioning for the assessment of dislocations
- Differentiate between the different types of joint dislocations
- Correctly diagnose and classify the different fractures at the level of the growth nucleus and involving the adjacent epiphysis and metaphysis
- Identify the different muscle, tendon and ligament pathologies by radiological imaging and understand their limitations







# tech 14 | Course Management

# 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**

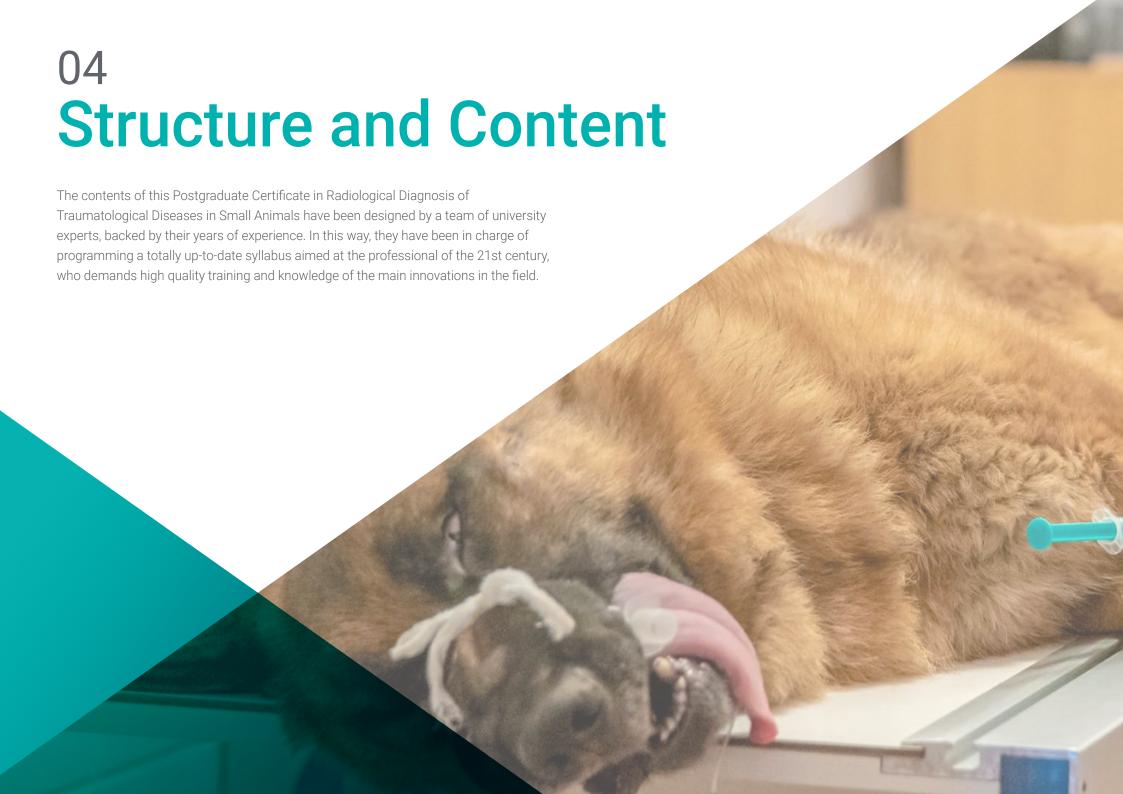
### Dr. Lázaro González, María

- 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. Gandía, Ana

- Veterinarian at Veterinary Clinic El Pinar (Navalcarnero, Madrid). Since 2020
- Graduated in Veterinary Medicine from Alfonso X El Sabio University in 2020
- Collaboration as a student in the Neurology Service of the HCV of the UAX in the area of small animals. 2019-2020
- Currently attending the International Improvement Postgraduate Course on "Small Animal Surgery: soft tissues, traumatology and neurosurgery"
- Colvema course "Diagnosis of alopecia in the dog" September 2020
- Colvema course "Canine cutaneous mastocytoma, how should we act?" November 2020
- Leganés Norte Veterinary Clinic, as VCT. 2017-2018







# tech 18 | Structure and Content

### Module 1. Orthopedic Radiological Diagnosis II

- 1.1. Anatomy Radiology of the Pelvis
  - 1.1.1. General Considerations
  - 1.1.2. Radiologic Assessment of Stable Hip Fractures
  - 1.1.3. Surgical Radiological Indication
    - 1.1.3.1. Intra-articular Fracture
    - 1.1.3.2. Closure of the Pelvic Canal
    - 1.1.3.3. Joint Instability of a Hemipelvis
  - 1.1.4. Fracture Separation of the Sacro-Iliac Joint
  - 1.1.5. Fractures of the Acetabulum
  - 1.1.6. Fracture of the Ilium
  - 1.1.7. Ischial Fractures
  - 1.1.8. Pubic Symphysis Fractures
  - 1.1.9. Fractures of the Ischial Tuberosity
- 1.2. Radiological Imaging of Femur Fractures
  - 121 Proximal Femoral Fractures
  - 1.2.2. Fractures of the Medium Third of the Femur
  - 1.2.3. Fractures of the Distal Third of the Femur
- 1.3. Radiological Imaging of Tibial Fractures
  - 1.3.1. Fractures of the Proximal Third
  - 1.3.2. Fractures of the Middle Third of the Tibia
  - 1.3.3. Fractures of the Distal Third of the Tibia
  - 134 Fractures of the Tibial Malleoli
- 1.4. Anterior Member
  - 1.4.1. Radiological Imaging of the Scapula Fractures
  - 1.4.2. Radiological Imaging of the Humerus Fractures
  - 1.4.3. Radiological Imaging of the Radius and Ulnar Fractures
- 1.5. Fractures of the Maxilla and Mandible, Radiological Imaging of the Skull
  - 1.5.1. Jaw Radiology
    - 1.5.1.1. Rostral Jaw
    - 1.5.1.2. Dental Radiology
    - 1.5.1.3. Temporomandibular Joint (TMJ)

- 1.5.2. Radiology of the Maxilla
  - 1.5.2.1. Dental Radiology
  - 1.5.2.2. Radiology of the Maxilla
- 1.5.3. Radiology to the Paranasal Sinus
- 1.5.4. Radiology of the Skull
- 1.5.5. Oncology
- Radiology of Fractures and Other Alterations Resulting in Incongruence of the Articular Surface
  - 1.6.1. Fractures Affecting the Growth Nucleus
  - 1.6.2. Classification of the Epiphysis Based on its Type
  - Classification of Slipped or Split Fractures Involving the Growth Nucleus and Adjacent Epiphyseal Metaphysis
  - 1.6.4. Clinical Assessment and Treatment of Damage to Nucleus Growth
  - 1.6.5. Radiology of Joint Fractures in Adult Animals
- 1.7. Joint Dislocations, Radiology
  - 1.7.1. Radiological Positioning
  - 1.7.2. Nomenclature
  - 1.7.3. Traumatic Dislocations
  - 1.7.4. Scapulohumeral Instability
- .8. Interventional Radiology in Traumatology
  - 1.8.1. Radiology of the Fractures Affecting the Growth Nucleus
  - 1.8.2. Radiology of Fractures Involving the Epiphysis based on Their Type
  - 1.8.3. Radiology of Slipped or Split Fractures Involving the Growth Nucleus, Epiphysis and Adjacent Metaphysis
  - .8.4. Radiology of Joint Fractures in Adult Animals
- 1.9. Radiology of Muscular, Tendinous and Ligamentous Diseases
  - 1.9.1. Radiology of Muscular Diseases
  - 1.9.2. Radiology of Tendinous and Ligamentous Diseases
  - 1.9.3. Other Alternatives for Diagnostic Imaging of these Pathologies



# Structure and Content | 19 tech

- 1.10. Radiology of Metabolic and Nutritional Disorders
  - 1.10.1. Introduction
  - 1.10.2. Radiologic Imaging in Secondary Nutritional Hyperparathyroidism
  - 1.10.3. Radiologic Imaging in Secondary Renal Hyperparathyroidism
  - 1.10.4. Radiological Imaging in Hypervitaminosis A
  - 1.10.5. Radiologic Imaging in Pituitary Dwarfism



Don't miss this opportunity to study at the leading online university: TECH"



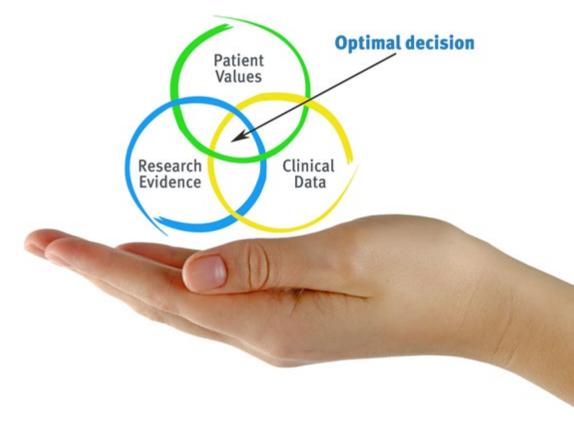


# tech 22 | Methodology

#### 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.



# Methodology | 25 tech

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**

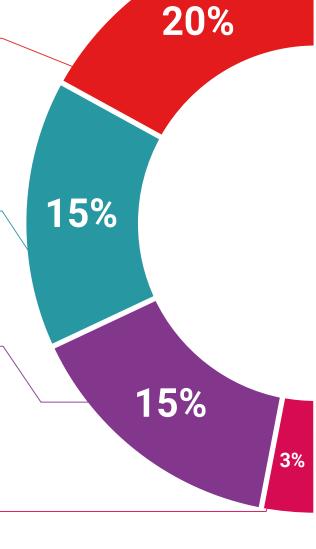
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch 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.

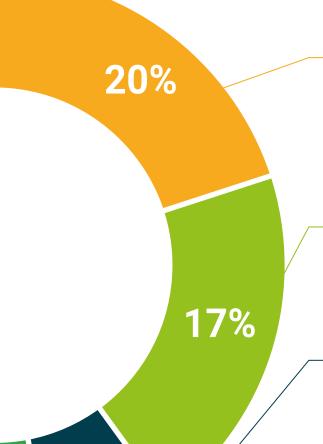
This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".





#### **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.



7%

# **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.





#### **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.







# tech 30 | Certificate

This Postgraduate Certificate in Radiological Diagnosis of Traumatological Diseases in Small Animals contains the most complete and updated scientific program on the market.

After the student has passed the evaluations, 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 Radiological Diagnosis of Traumatological Diseases in Small Animals

Official N°of hours: 150 h.



r./Ms. \_\_\_\_\_, with identification number \_\_\_\_ For having passed and accredited the following program

#### POSTGRADUATE CERTIFICATE

in

#### Radiological Diagnosis of Traumatological Diseases in Small Animals

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

Tere Guevara Navarro

his qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country

Inique TECH Code: AFWORD23S techtitute.com/ce

<sup>\*</sup>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.

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