





# Postgraduate Certificate

# Thoracic Limb Fractures

Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

**6 ECTS Credits** 

Teaching Hours: 150 hours.

Website: www.techtitute.com/us/veterinary/postgraduate-certificate/thoracic-limb-fracture

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# tech 06 | Introduction

The teaching team of this Course in Thoracic Limb Fractures has made a careful selection of the different state-of-the-art techniques for experienced professionals working in the veterinary field.

The humerus is a bone that has a greater diameter in the proximal region and, as it approaches the elbow, it loses diameter until it reaches the supracondylar area. This area is the weakest part of this bone so most fractures are found in the distal portion.

Distal humerus fractures are the most complicated fractures, since there is a wide articular surface area in a minimal portion of bone, so a fracture of the distal portion of the humerus must be treated accurately, effectively and stably.

This program analyzes the importance of the choice of implant for the correct treatment of this type of invoices.

On the other hand, radius and ulna fractures are complicated in terms of their repair and clinical union, due to the fact that they are bones with little muscular mass, therefore, the blood perfusion of the tissue is minimal.

In the case of the ulna there is the insertion of the triceps brachii, so the attention must be maximal in these fractures. In the radius, fractures are very important especially in miniature breeds, as they have bones that are very difficult to repair, so it is important to achieve, from the beginning, a good stability to avoid the possible consequences of a badly treated fracture.

The teachers in this training are university professors with between 10 and 50 years of classroom and hospital experience. They are professors from schools on different continents, with different ways of doing surgery and with world-renowned surgical techniques. This makes this course a unique specialization program, different from any other offered at this moment in the rest of the universities.

As it is an online course, the student is not conditioned by fixed schedules or the need to move to another physical location, but can access the contents at any time of the day, balancing their work or personal life with their academic life.

This **Thoracic Limb Fractures Course** 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 food safety.
- 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.
- News on Thoracic Limb Fractures
- Practical exercises where self-assessment can be used to improve learning.
- Special emphasis on innovative methodologies in Thoracic Limb Fractures.
- 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



Do not miss the opportunity to take with us this Postgraduate Certificate in Thoracic Limb Fractures. It's the perfect opportunity to advance your career".



This course is the best investment you can make in selecting a refresher program to update your knowledge in Thoracic Limb Fractures."

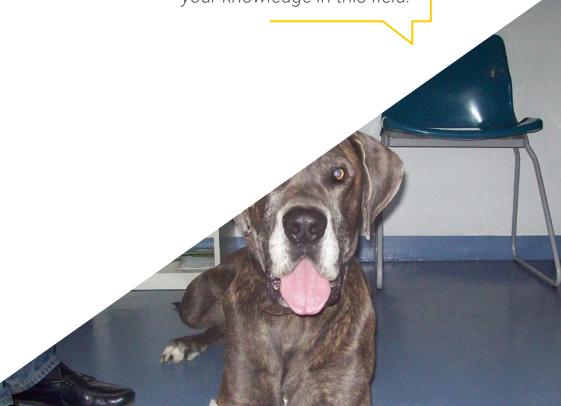
Its teaching staff includes professionals from the veterinary field, who bring the experience of their work to this training, as well as recognised specialists from leading societies and prestigious universities.

Its multimedia content, developed 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 education programmed to train in real situations.

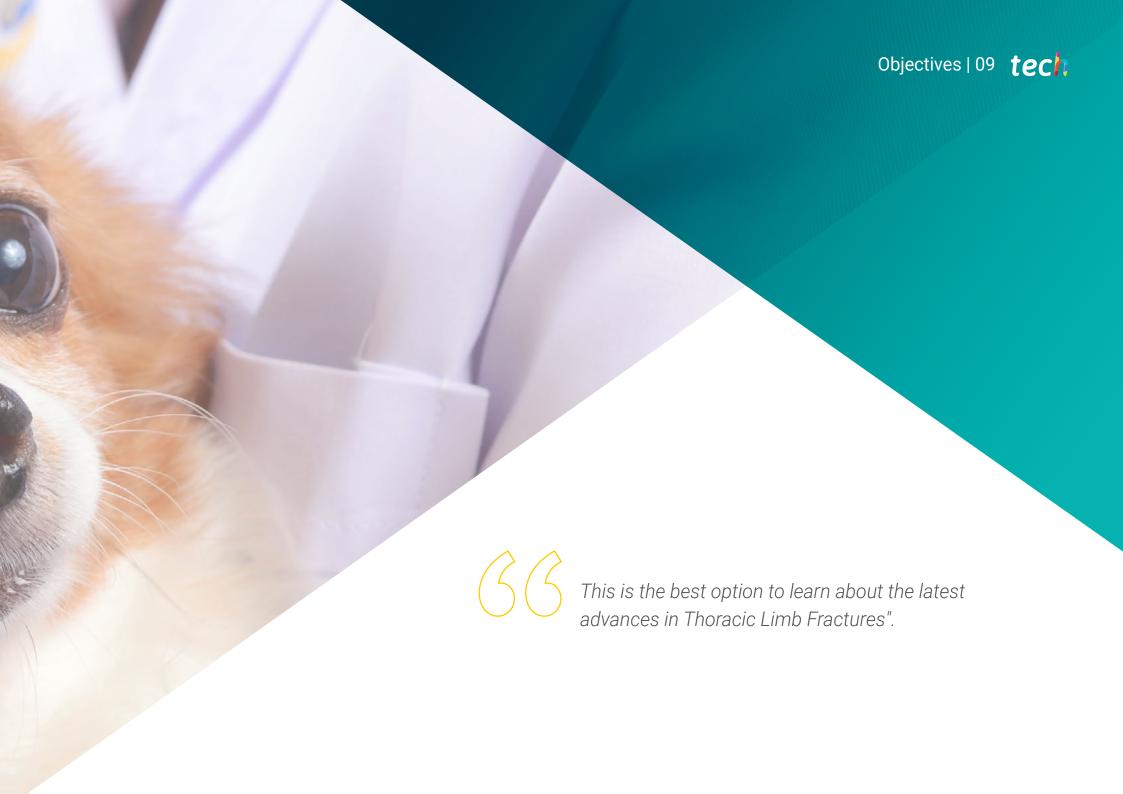
This program is designed around Problem Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Thoracic Limb Fractures.

This training comes with the best didactic material, providing you with a contextual approach that will facilitate your learning.

This 100% online Postgraduate Certificate will allow you to combine your studies with your professional work while expanding your knowledge in this field.







# tech 10 | Objectives

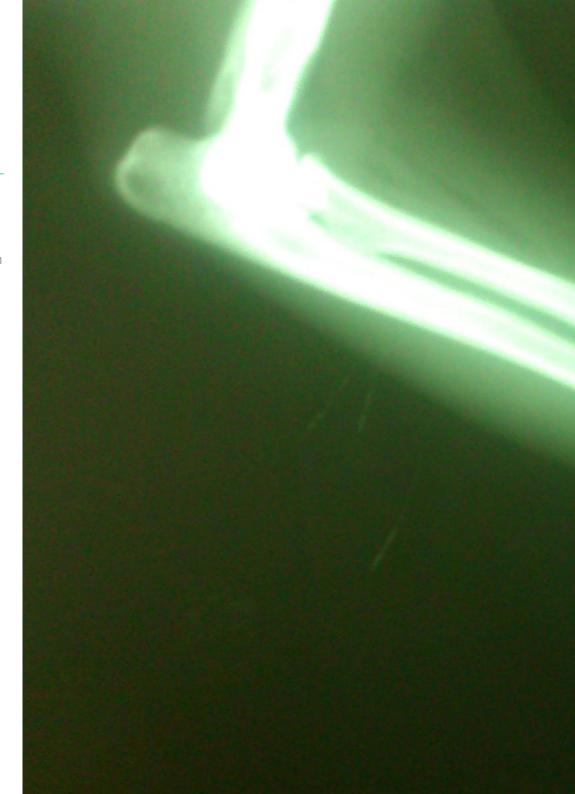


# **General Objectives**

- Develop specialized knowledge of osteosynthesis in complicated fractures of the scapula, humerus, radius and ulna.
- Develop specialized decision-making criteria for "specific" fractures with "specific" repairs in each of the existing fractures of the scapula, humerus, radius and ulna.



An avenue for training and professional growth that will propel you towards greater competitiveness in the labor market."

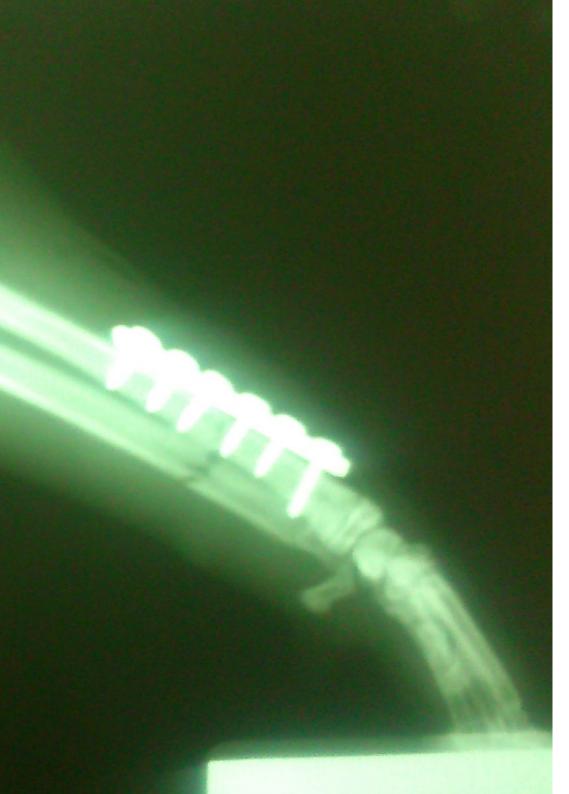


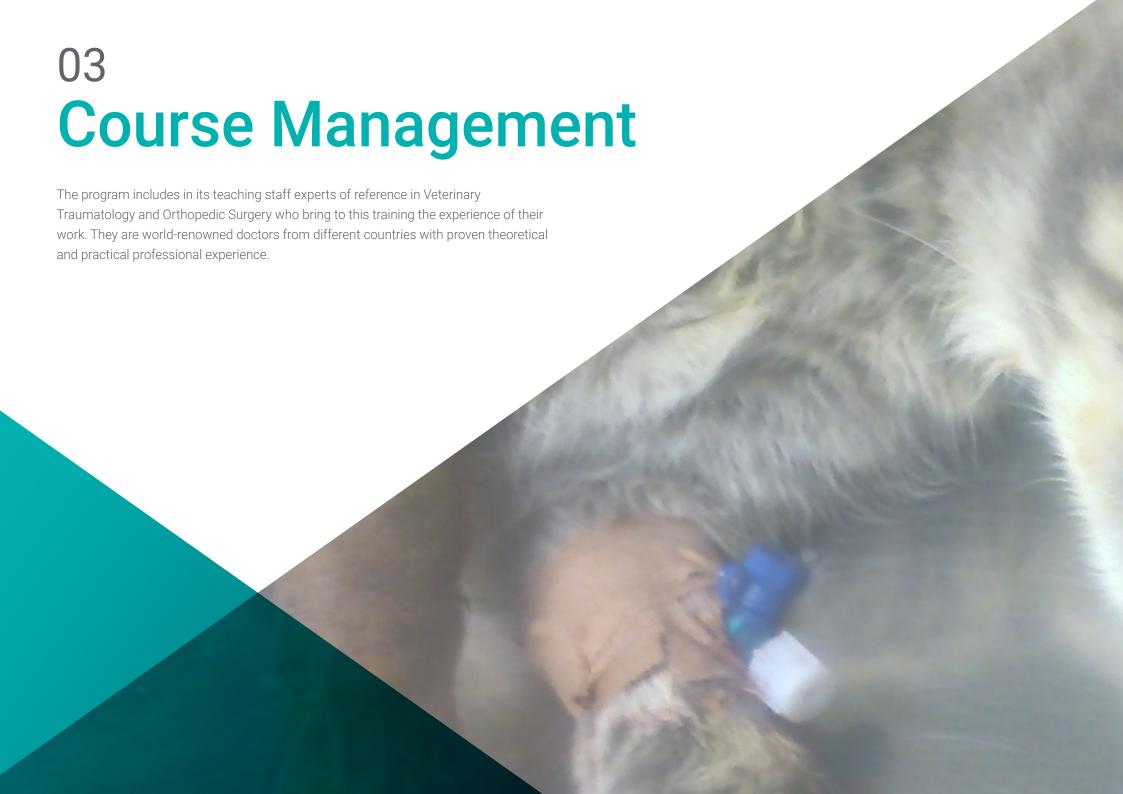




### **Specific Objectives**

- Analyze fractures of the scapula and how to fix each of them.
- Examine the classification of distal humerus fractures.
- Determine the most recommended methods of fixation for successful fracture repairs
- Develop specialized training in the different combinations of osteosynthesis systems for the repair of fractures of the middle third of the humerus.
- Study the different methods of fixation and refine knowledge in those methods that have the highest success rate among the different methods of elbow fracture fixation.
- · Specify the different fractures involving the radius and ulna.
- Analyze the different methods of fixation most recommended for the solution of radius and ulna fractures
- Detail the most common fractures of the region, diagnosis and surgical resolution.
- Examine fractures and dislocations of the carpus and phalanges and the most effective fixation of these fractures and dislocations.
- Determine forelimb growth abnormalities, origin and treatment by angular corrections through osteotomies and associated methods of treatment.
- Determine the most common fractures of the mandible and maxilla, as well as the different ways to solve them.





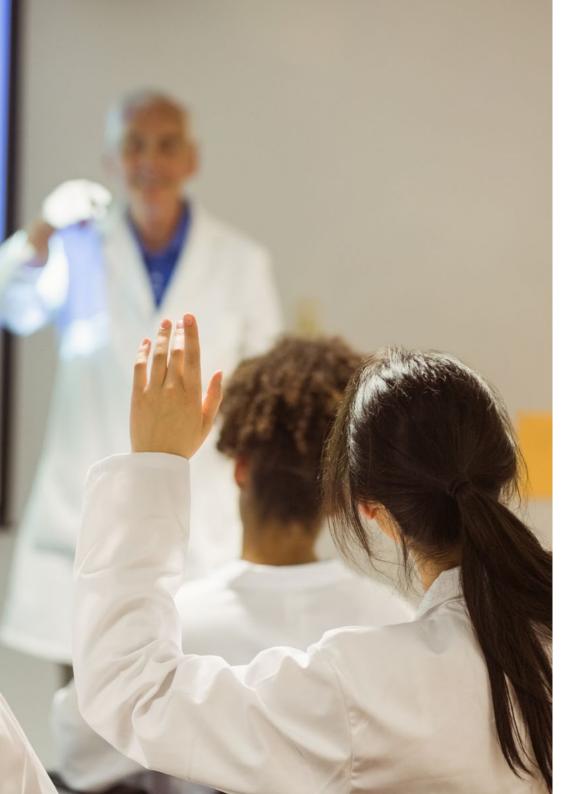
# tech 14 | Course Management

#### Management



### D. Soutullo Esperón, Ángel

- Degree in Veterinary Medicine from the Complutense University of Madrid, 1994.
- Diploma of Advanced Studies in Veterinary Medicine from the Complutense University of Madrid 2010.
- Member of the Scientific Committee of GEVO and AVEPA 2014.
- Master's Degree in Surgery and Traumatology Universidad Complutense de Madrid 1996.
- Lecturer at the Alfonso X el Sabio University 2005–2010 in the subjects of Radiology, Surgical Pathology and Surgery.
- Responsible for the surgical section in the 2011 AEVA Master's Degree in small animal emergencies.
- Owner of the veterinary clinic ITECA 1996-2011.
- Head of the surgery service at the University Hospital of the Alfonso X el Sabio University 2005-2010.
- Study of the clinical repercussions of corrective osteotomies in tplo (TFG Meskal Ugatz 2018).
- Study of the clinical repercussions of corrective osteotomies in tplo (TFG Ana Gandia 2020).
- Studies of biomaterials and xenografts for orthopaedic surgery 2010-2018.



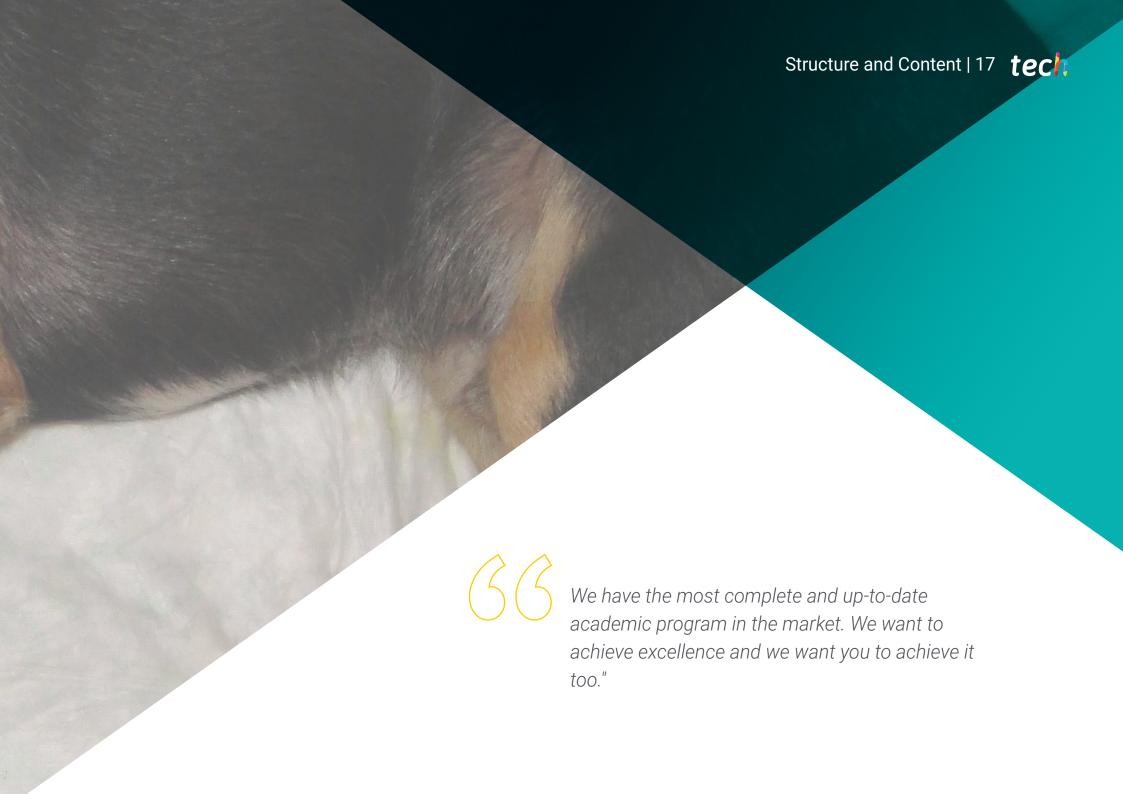
# Course Management | 15 tech

#### **Professors**

#### Dr. Borja Vega, Alonso

- Attendance of postgraduate Veterinary Ophthalmology UAB 2014/2015.
- SETOV 2016 practical course on Osteosynthesis Initiation
- Advanced Elbow Course 2018.
- GPCert Advanced in small Animal Orthopedics 2019 (GPCert Advanced in small Animal Orthopedics).

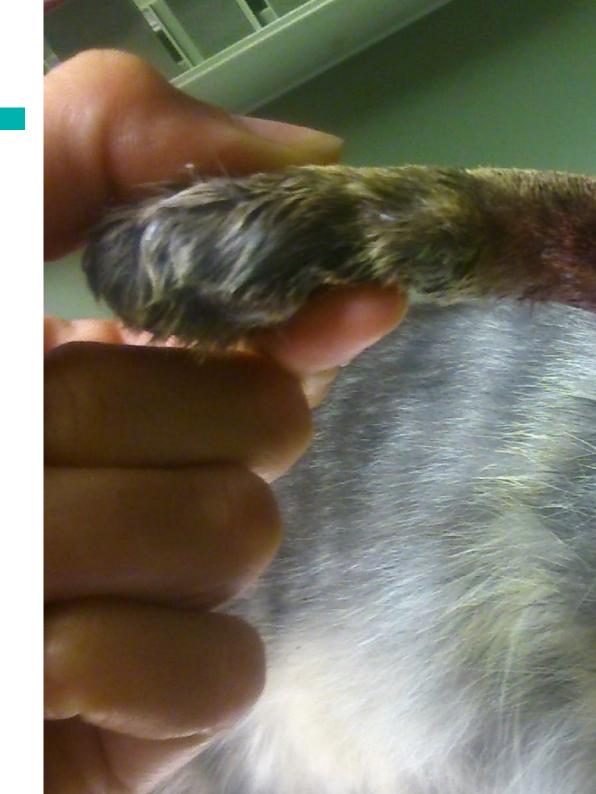




# tech 18 | Structure and Content

#### Module 1. Thoracic Limb Fractures

- 1.1. Scapula.
  - 1.1.1. Classification of Fractures.
  - 1.1.2. Conservative Treatment
  - 1.1.3. Surgical Approach.
    - 1.1.3.1. Reduction and Fixation.
- 1.2. Dorsal Dislocation of the Scapula.
  - 1.2.1. Diagnosis.
  - 1.2.1. Treatment.
- 1.3. Fractures of the Humerus.
  - 1.3.1. Fractures of the Proximal Humerus.
- 1.4. Humeral Body Fractures.
- 1.5. Supracondylar Fractures.
  - 1.5.1. Open Reduction.
    - 1.5.1.1. Medial Approach.
    - 1.5.1.2. Lateral Approach.
  - 1.5.2. Fixation of Supracondylar Fractures.
  - 1.5.3. Post-Surgical.
  - 1.5.4. Fractures of the Medial or Lateral aspect of the Humeral Condyle.
    - 1.5.4.1. Surgical Procedure.
    - 1.5.4.2. Post-Surgical.
- 1.6. Intercondylar Fractures, T-Condylar Fractures and Y Fractures
  - 1.6.1. Surgical Procedure for the Reduction and Fixation of Intercondylar Fractures.
  - 1.6.2. Post-Surgery
- 1.7. Fractures of the Radius and Ulna.



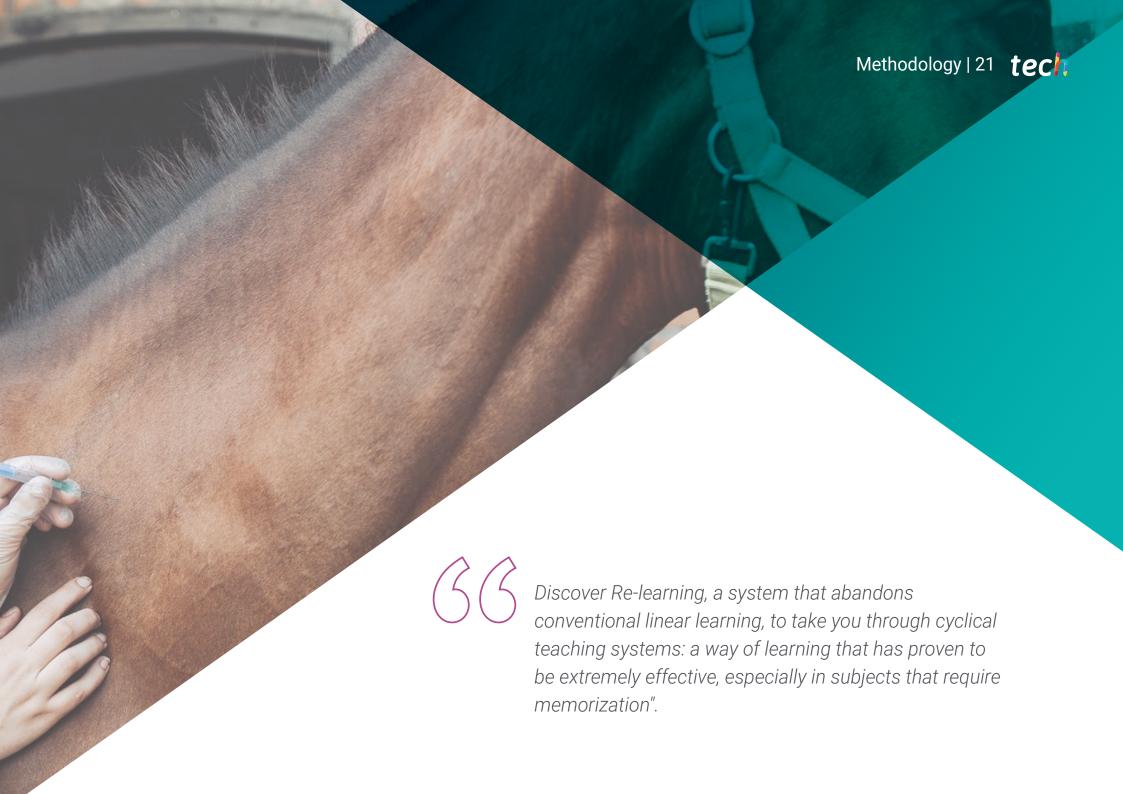
- 1.7.1. Ulna Fracture Involving the Lunate Curvature.
  - 1.7.1.1. Post-Surgical.
- 1.7.2. Separation Fracture of the Proximal Radial Epiphysis.
  - 1.7.2.1. Surgical Procedure.
- 1.7.3. Fracture of the Proximal third of the Ulna and Dislocation of the Radial Head and Distal portion of the Ulna.
- 1.7.4. Fractures of the Proximal Third of the Ulna, Dislocation of the Radial Head and Separation of the Radius and Ulna (Monteggia fracture).
- 1.7.5. Fractures of the Radius and Ulna.
  - 1.7.5.1. Closed Reduction and External Fixation of the Radius and Ulna.
    - 1.7.5.1.1. Masson Splint and Other Coaptation Splints.
    - 1.7.5.1.2. Acrylic Splints or Similar Moulds.
  - 1.7.5.2. Surgical Approach to the Radius and Ulna body.
    - 1.7.5.2.1. Craniomedial Approach to the Radius
    - 1.7.5.2.2. Craniolateral Approach (Radius and Ulna).
    - 1.7.5.2.3. Caudal or Post-Ulna Approach.
- 1.7.6. Fixation
  - 1.7.6.1. External Fixators
  - 1.7.6.2. Circular Fixators
  - 1.7.6.3. Intramedullary Nails.
  - 1.7.6.4. Bone Screws.
  - 1.7.6.5. Bone Plates.
- 1.8. Fractures of the Maxilla and Mandible.
  - 1.8.1. Fixation of the Mandibular Symphysis.
  - 1.8.2. Fixation of Fractures of the Mandibular Body.
    - 1.8.2.1. Orthopedic Wire around the Teeth.
    - 1.8.2.2. Orthopedic Wire Ties.
    - 1.8.2.3. Intramedullary Nailing.
    - 1.8.2.4. Skeletal External Fixator.

- 1.8.2.5. Bone Plates.
- 1.8.2.6. Fractures of the Maxilla.
  - 1.8.2.6.1. Treatment of Fractures in Young Growing Animals.
  - 1.8.2.6.2. Some Characteristic Aspects of Immature Bone.
  - 1.8.2.6.3. Primary Indications for Surgery.
  - 1.8.6.3.1. Intramedullary Nails.
  - 1.8.6.3.2. External Skeletal Fixator.
  - 1.8.6.3.3. Bone Plates.
- 1.9. Distal Fractures.
  - 1.9.1. The Carpus
  - 1.9.2. The Metacarpals.
  - 1.9.3. From the Phalanges.
  - 1.9.4. Ligament Reconstruction.
- 1.10. Fractures Resulting in Incongruence of the Articular Surface.
  - 1.10.1. Fractures Affecting the Growth Core.
  - 1.10.2. Classification of the Epiphysis Based on its Type.
  - 1.10.3. Classification of Slipped or Split Fractures Involving the Growth Nucleus and Adjacent Epiphyseal Metaphysis.
  - 1.10.4. Clinical Assessment and Treatment of Damage to Nuclei Growth.
  - 1.10.5. Some of the Most Common Treatments for Premature Physis Closure.



This training will allow you to advance your career in a comfortable way."



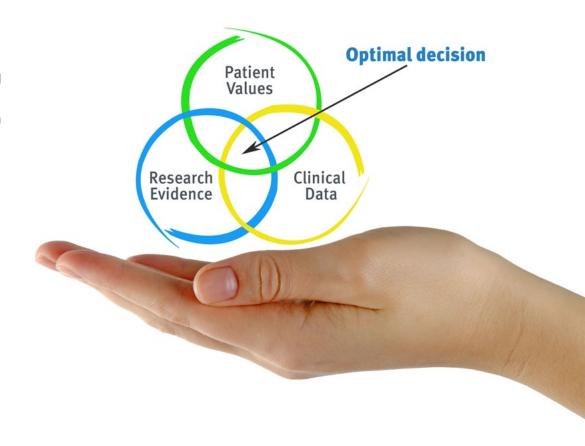


# tech 22 | Methodology

#### At TECH we use the Case Method

In a given clinical situation, what would you do? 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 can 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 potential or because of its uniqueness or rarity. It is essential that the case be based on current professional life, trying to recreate the real conditions in the 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 achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.
- 2. The learning process has a clear focus on 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.



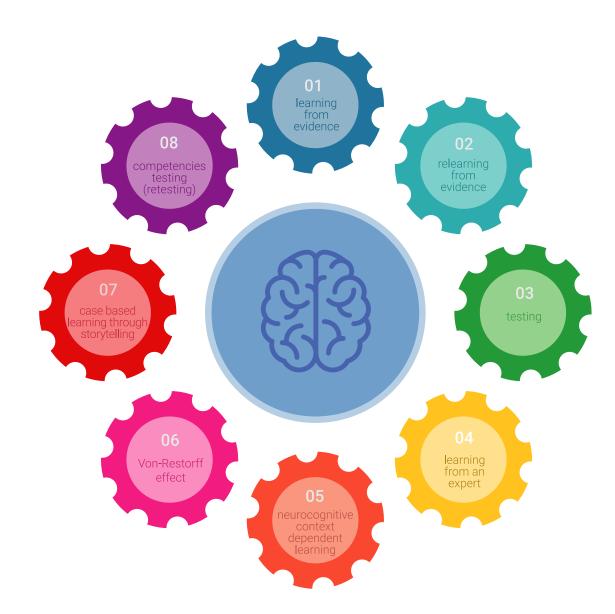


#### Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 65,000 veterinarians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning 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 to success.

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

# tech 26 | Methodology

In this program you will have access to the best educational material, prepared with you 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 really specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### **Latest Techniques and Procedures on Video**

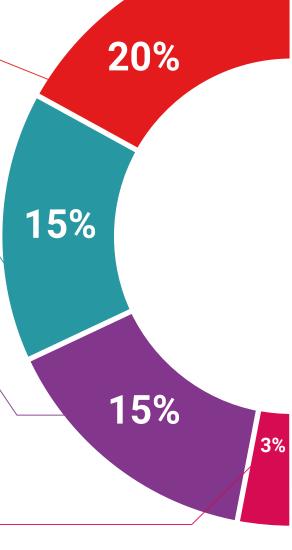
We bring you closer to the latest Techniques, to the latest Educational Advances, to the forefront of current Veterinary Techniques and Procedures. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **Interactive Summaries**

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

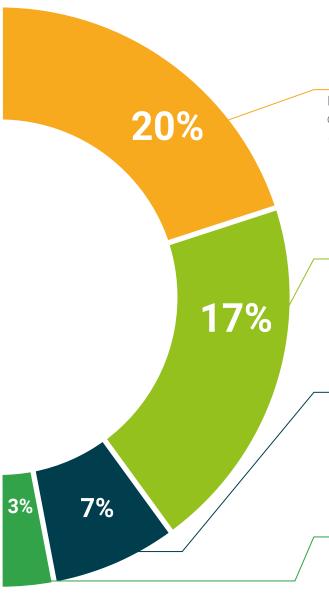
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **Additional Reading**

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.



#### **Expert-led case studies and case analysis**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through the development of attention and the resolution of different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



#### Classes

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





#### **Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.







# tech 30 | Certificate

This **Postgraduate Certificate in Thoracic Limb Fractures** contains the most complete and up to date scientific program on the market. After passing the evaluations, the student will receive the corresponding **Postgraduate Certificate** issued by **TECH - Technological University.** 

The diploma issued by TECH - Technological University will express the qualification obtained in the Postgraduate Certificate and will meet the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: Postgraduate Certificate in Fractures of the Thoracic Limb

ECTS: 6

Official Number of Hours: 150 hours.



#### **CURSO UNIVERSITARIO**

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#### Fracturas del Miembro Torácico

Se trata de un título propio de esta Universidad homologado por 6 ECTS y equivalente a 150 horas, con fecha de inicio dd/mm/aaaa y fecha de finalización dd/mm/aaaa.

TECH es una Institución Particular de Educación Superior reconocida por la Secretaría de Educación Pública a partir del 28 de junio de 2018.

A 17 de junio de 2020

Mtra. Tere Guevara Navarro
Rectora

health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment



# Postgraduate Certificate Thoracic Limb Fractures

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