



# Postgraduate Certificate

# Reptile Expert

» Modality: online

» Duration: 12 weeks

» Certificate: TECH Global University

» Credits: 12 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/reptile-expert

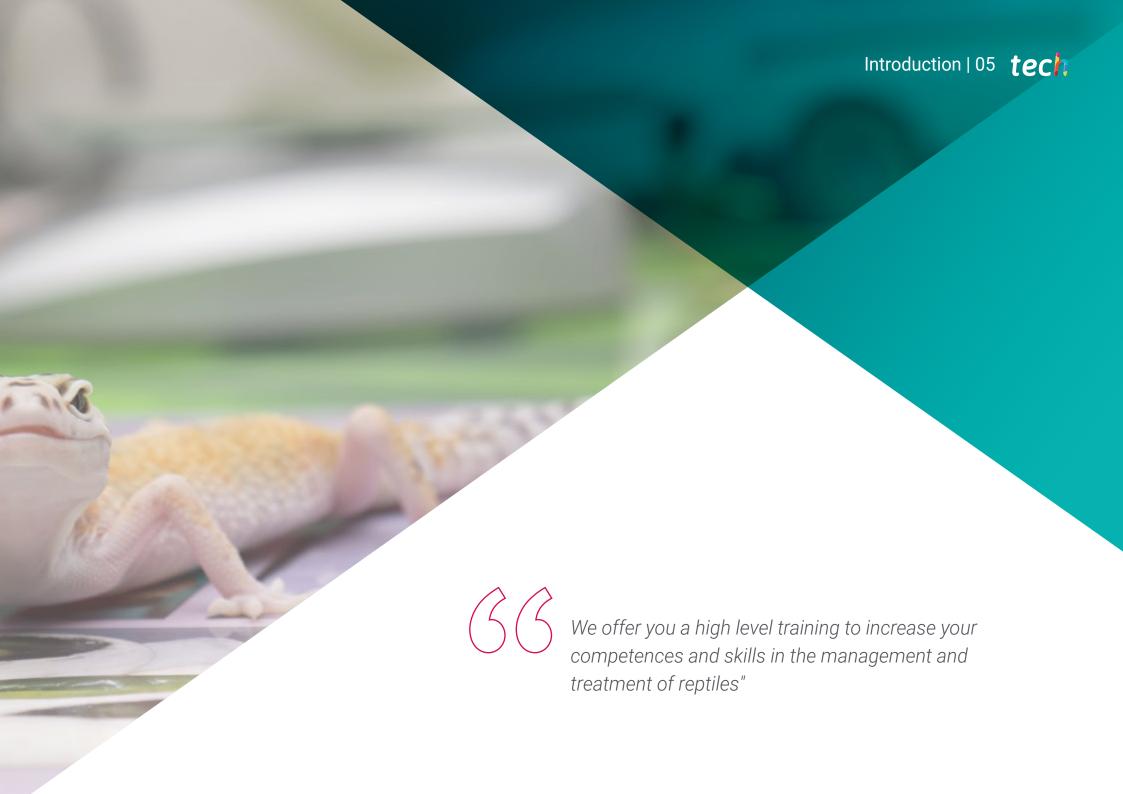
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Certificate





### tech 06 | Introduction

There are a multitude of reptile species, although only a few are acquired to be in captivity, either in zoos or as pets. For this reason, it is very important to have extensive knowledge of reptiles in rehabilitation centers for native and exotic fauna, since it allows the prognosis of each animal to be assessed upon its arrival at the center. In addition, it must be taken into account that these animals can live more stressed lives, since it is impossible to recreate the natural environment of reptiles when they are in captivity.

The pets most commonly received at the daily clinic are iguanas, some species of lizards, turtles and snakes. However, although they are not pets, they should be considered non-conventional companion animals.

Most routine clinical procedures can be performed without the use of sedatives or anesthetics. However, gloves should be used to reduce the possible spread of zoonotic diseases. In some cases, the use of special gloves, surgical masks, goggles or protective screen should be implemented, depending on the ease of handling the patient and his pathology.

It is common for reptiles that come to the clinic to present health problems. This course will analyze some of the clinical signs detected in sick reptiles, which may be the beginning of serious health problems, such as hypothermia, hyperthermia, anorexia, depression, lack of movement, dehydration, muscular atrophy, etc.

In addition, as it is an online Postgraduate Certificate, the student is not constrained 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 as they wish.

This **Postgraduate Certificate in Reptile Expert** is the most comprehensive and up-todate educational program on the market. The most important features of the program include:

- Practical cases presented by reptile experts.
- 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.
- The latest news on the diagnosis and treatment of diseases in reptiles
- Practical exercises where self-assessment can be used to improve learning.
- A special emphasis on innovative methodologies in the field of the diagnosis and treatment of diseases in reptiles
- 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 do this Postgraduate Certificate in Reptile Expert with us. It's the perfect opportunity to advance your career"

### Introduction | 07 tech



This Postgraduate Certificate is the best investment you can make when choosing a refresher programme to expand your existing knowledge in everything related to reptiles"

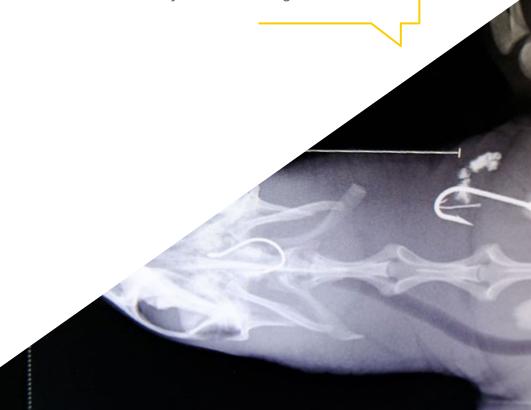
It includes in its teaching staff, professionals belonging to the veterinary field, who pour into this training the experience of their work, in addition to recognized specialists from reference societies and prestigious universities.

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.

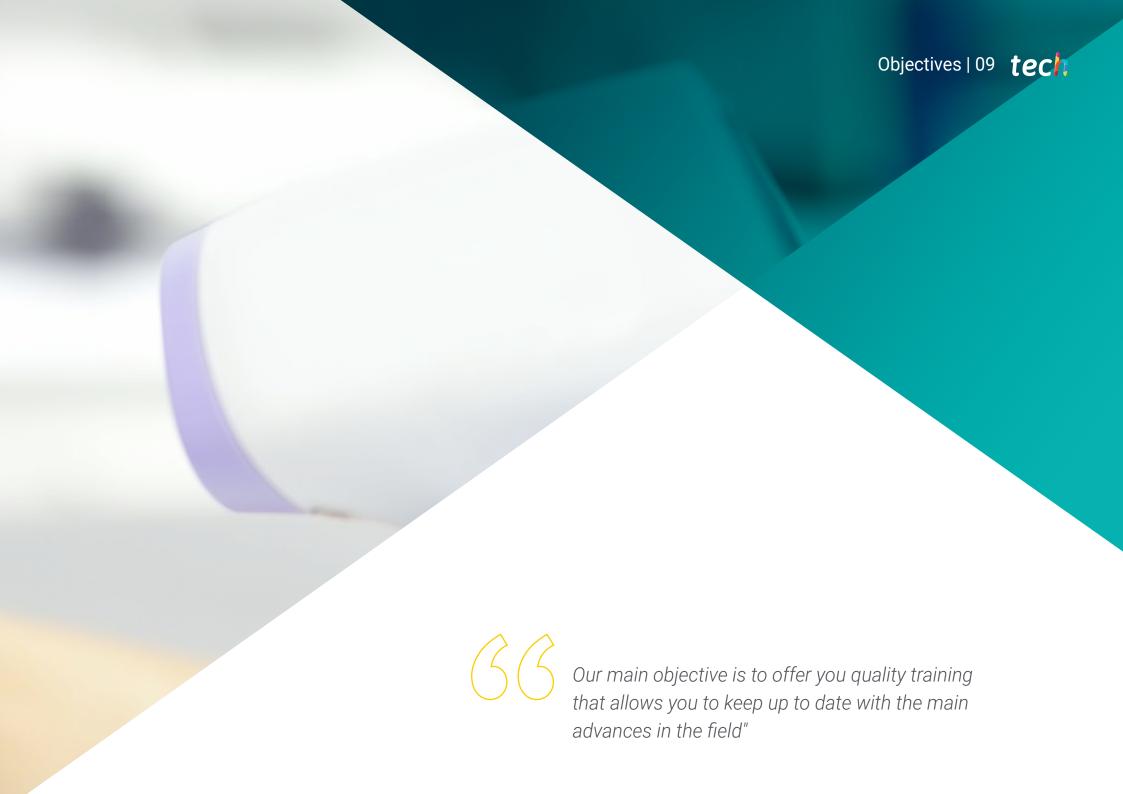
This program is designed around Problem Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative Interactive video system, developed by renowned and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

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

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







### tech 10 | Objectives



### **General Objective**

- Examine the most common reptiles in captivity, and their anatomical differences between species
- Determine the taxonomic classification
- Develop reptile handling techniques
- Establish the routes of drug administration and assess the degree of stress produced in each situation; punctual stress, maintained stress and environmental stress.
- Determine the main pathologies of reptiles
- Examine the changes in behavior or other aspects of the animal following a pathology
- Establish treatments and cures for the most frequent pathologies
- Develop specialized knowledge on the most advanced surgical techniques, with updated anesthetic protocols





### **Specific Objectives**

#### Module 1

- Evaluate the types of facilities that exist and adapt them to each species and its needs.
   Access to water, the material used for the terrarium, and the crucial importance of temperature, humidity and light are the most important factors in providing reptiles with the basic means they need
- Identify the natural process of hibernation, taking into account relevant aspects such as
  the types of hibernation, the species that hibernate and the problems that hibernation can
  cause during captivity
- Gain specialized knowledge on radiology in reptiles, a basic diagnostic technique to treat their diseases
- Explore other imaging techniques, such as ultrasound and endoscopy and cite the situations in which we should use these supportive techniques.
- Identify all the information provided by a coprological analysis, a routine procedure in practices that should always be performed.
- Study the biochemical parameters of reptiles
- Establish routine necropsy techniques to find pathologies

#### Module 2

- Determine the most frequent zoonoses, prevention and indications for owners
- Analyze the most important diseases in reptiles
- Treat the species with specific drugs and doses
- Understand the use of the concepts MEC (Metabolic Energy Constant) and SMEC (Specific Metabolic Energy Constant), understanding that there are differences in the dose depending on the physiological state.
- Inspect updated anesthetic studies
- Analyze the anatomical and physiological particularities of each species in order to make the appropriate anesthetic considerations
- Establish the basic and routine surgical techniques in clinical practice.
- Discuss other important surgical issues
- Describe the pathologies presented by reptiles with more complex causes





### tech 14 | Course Management

### Director



### Dr. Trigo García, María Soledad

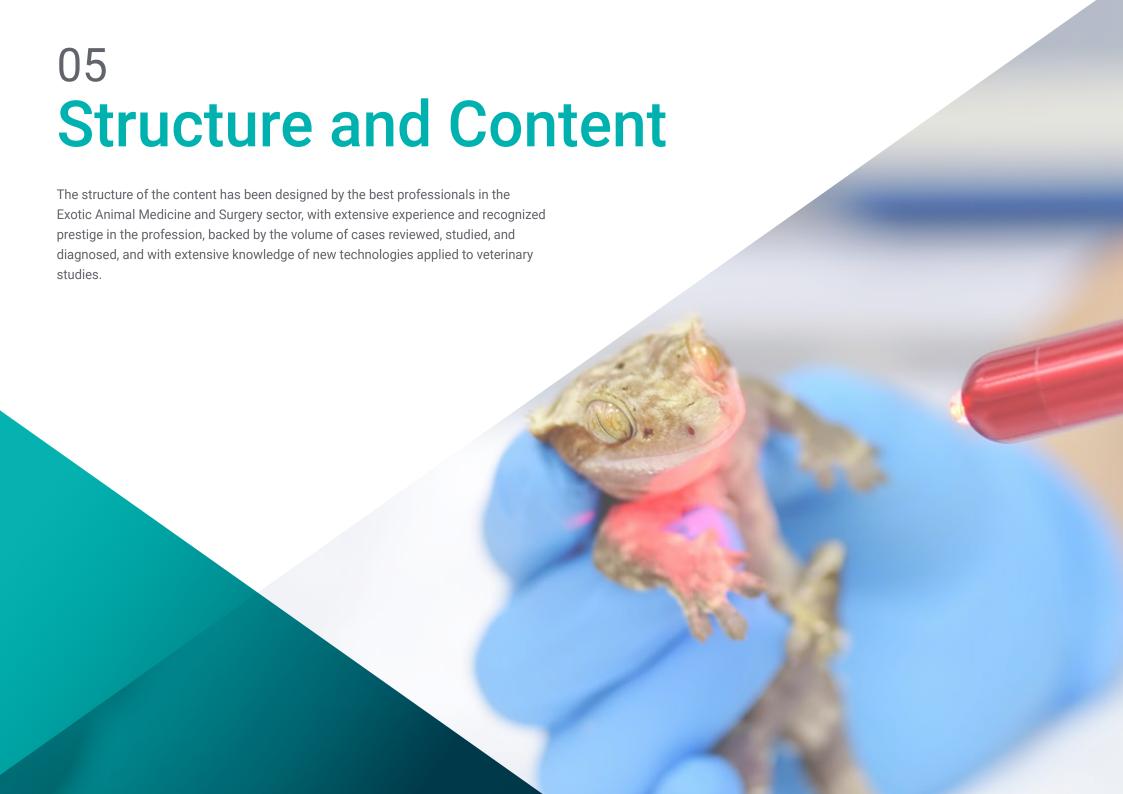
- Veterinarian in charge of the Internal Medicine and Exotic Animal Surgery Service at the Clinical Veterinary Hospital of the Alfonso X El Sabio University in Madrid.
- Degree in Veterinary Medicine from the Alfonso X el Sabio University (2012)...
- Postgraduate degree in General Practitioner Certificate Programme in Exotic Animals, Improve International.
- Postgraduate degree in Food Safety from the Complutense University of Madrid...
- Coordinator and Professor of the subject of Exotic Animal Symptoms and Therapeutics at the Faculty of Veterinary Medicine,
   Alfonso X El Sabio University of Madrid.
- Lecturer in Food Science and Technology, Alfonso X El Sabio University.
- Veterinary consultant at the José Peña Wildlife Center, and various veterinary clinics in Madrid.
- Director of the Exotic Animal Service at the PRADO DE BOADILLA veterinarian center.
- Tutor of the Final Degree Dissertations of the Exotic and Wild Animal Medicine and Surgery at the Alfonso X El Sabio University,
- External expert evaluator and member of the tribunal of different Final Degree Dissertations.

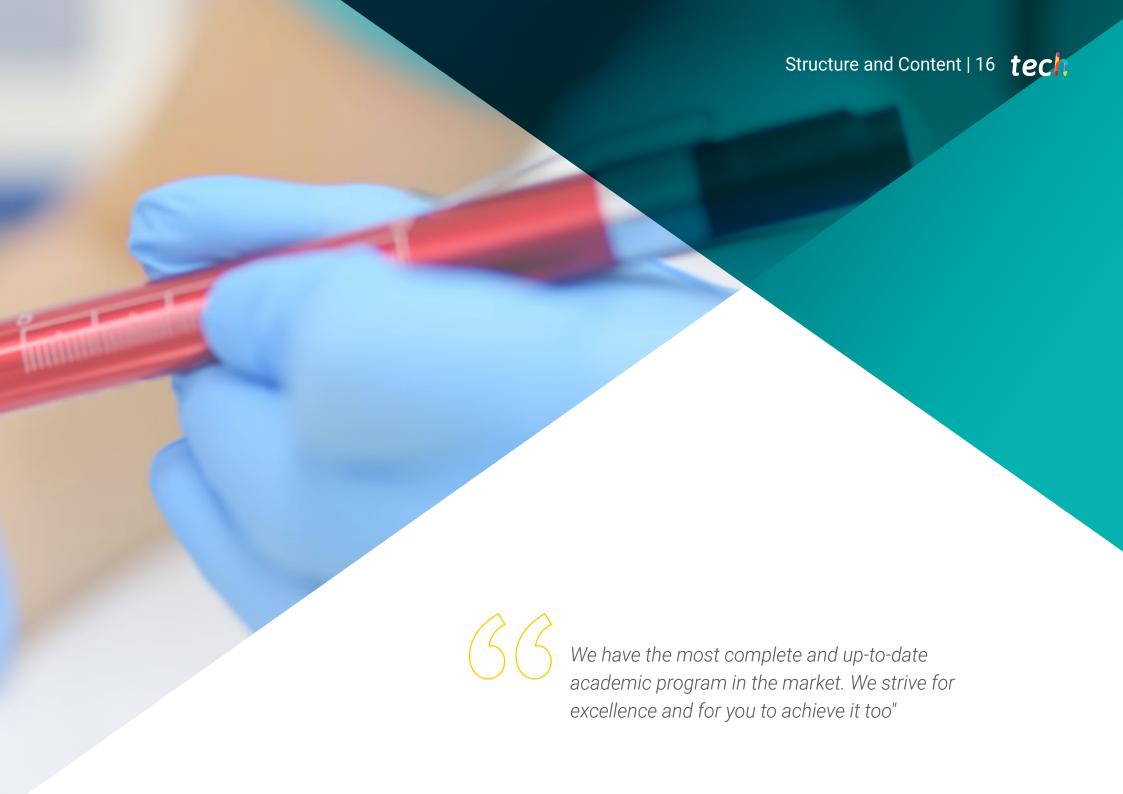
### **Professors**

### D. Ouro Núñez, Carlos

- Degree in Veterinary from the University of Santiago de Compostela (2007)
- Member of the G.M.C.A.E. (Group of Medicine and Surgery of Exotic Animals) of A.V.E.P.A. (Association of Spanish Small Animal Veterinarians).
- Member of the A.A.V. (Association of Avian Veterinarians)
- Member of the A.E.M.V. (Association of Exotic Mammal Veterinarians)
- Member of the A.R.A.V (Association of Reptile and Amphibian Veterinarians)
- Professor and coordinator of the "Master in Exotic Animal Medicine and Surgery", taught by Forvetex, from 2018 to the present
- Tutor for external internships at different national and international universities
- Since 2014 he is the owner and administrator of the Madagascar exotic animal specialist clinic (Madrid), a center that in turn supports different veterinary centers and hospitals and breeders of non-conventional species.
- Veterinarian specializing in exotic animals in different veterinary clinics and hospitals in Madrid since 2007.
- · Author of several articles in national magazines on exotic and wild fauna
- Throughout his professional career, he has participated in more than 30 courses, congresses and conferences on exotic and wild animals, both nationally and internationally
- He was a volunteer at the Rof Codina Veterinary Hospital in Lugo during the Prestige disaster, performing detoxification, treatment, feeding and stabilization of the different maritime avian species received at the center throughout the crisis







### tech 17 | Structure and Content

### Module 1: Relevant Aspects of Reptiles I

- 1.1. Introduction
  - 1.1.1. Taxonomic Classification.
  - 1.1.2. The Most Common Species of Reptiles in Captivity
  - 1.1.3. Other Reptiles Kept in Captivity
- 1.2. Anatomy
  - 1.2.1. Common Aspects in Reptiles
    - 1.2.1.1. Skeletal System.
    - 1.2.1.2. Circulatory System.
    - 1.2.1.3. Digestive System
  - 1.2.2. Particular Anatomy of Turtles
  - 1.2.3. Anatomy of Lizards
  - 1.2.4. Anatomy of Snakes
- 1.3. Maintenance: Suitable Facilities for Each Species
  - 1.3.1. Special Furniture: Types of Terrariums and Their Dimensions
  - 1.3.2. Water: Calculation of Daily Water Requirements
  - 1.3.3. The Material of the Terrarium
  - 1.3.4. The Importance of temperature: POTZ (Preferred Optimum Temperature Zone)
  - 1.3.5. The Importance of Humidity
  - 1.3.6. Controlling Light: Effects on Their Organism
    - 1.3.6.1. Types of Radiation
    - 1.3.6.2. Existing Materials on the Market
  - 1.3.7. Coexistence.
    - 1.3.7.1. Interspecific.
    - 1.3.7.2. Intraspecific.
- 1.4. Hibernation or Diapause
  - 1.4.1. Relevant Concepts.
  - 1.4.2. Types of Hibernation
  - 1.4.3. Species that Hibernate
  - 1.4.4. Problems Derived from Hibernation

- 1.5. Nutritional Requirements: Nutrition.
  - 1.5.1. Classification Depending on the Type of Diet
  - 1.5.2. Aspects to be Assessed in Each Physiological State
  - 1.5.3. Diet for Herbivore Species
  - 1.5.4. Diet for Insectivore Species
  - 1.5.5. Diet for Carnivore Species
- 1.6. Clinical Management
  - 1.6.1. Reptile Transportation
    - 1.6.1.1. How to Go to the Practice
    - 1.6.1.2. Long-Term Transportation.
    - 1.6.1.3. Legislation
  - 1.6.2. Containing the Reptile for its Examination
  - 1.6.3. Caudal Autotomy
  - 1.6.4. Physical Examination
  - 1.6.5. Sexing Techniques
    - 1.6.5.1. Turtles.
    - 1.6.5.2. Lizards.
    - 1.6.5.3. Ophidians.
  - 1.6.6. Handing During Hospitalization
- 1.7. Sampling and Drug Administration
  - 1.7.1. Oral Posology.
    - 1.7.1.1. Suitable Techniques.
    - 1.7.1.2. Administering Food During Hospitalization
  - 1.7.2. Subcutaneous Route
  - 1.7.3. Intramuscular Route
  - 1.7.4. Intravenous Route Intravenous Catheterization
    - 1.7.4.1. Chelonids.
    - 1.7.4.2. Lizards.
    - 1.7.4.3. Ophidians.
  - 1.7.5. Intraosseous Route: Intraosseous Catheterization
  - 1.7.6. Intracellular Route: Similar to the Intraperitoneal Route in Mammals
- 1.8. X-Rays as a Basic Diagnostic Techniques
  - 1.8.1. Radiological Technique: Machinery and Optimum Radiographic Contrast

- 1.8.2. Handling During X-Rays and Radiographic Visualization.
  - 1.8.2.1. Chelonids.
  - 1.8.2.2. Lizards.
  - 1.8.2.3. Snakes.
- 1.9. Other Diagnostic Imaging Techniques Used: Ultrasound and Endoscopy
  - 1.9.1. Ultrasound in Reptiles: The Complement to X-Rays.
  - 1.9.2. Endoscopy: With Several Uses
- 1.10. Other Diagnostic Techniques
  - 1.10.1. Biopsies: Highly Valuable Information
  - 1.10.2. Clinical Biochemistry.
  - 1.10.3. Cytological Techniques.
  - 1.10.4. Coprology in Reptiles
  - 1.10.5. Microbiology: Detecting Viruses, Bacteria and Parasites
  - 1.10.6. Necropsy: Post-Mortem Examination

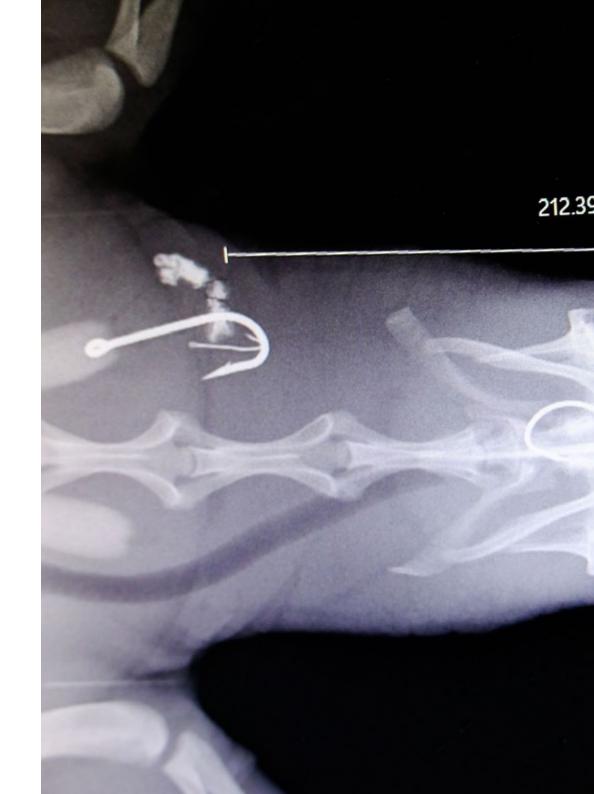
### Structure and Content | 18 tech

### Module 2: Relevant Aspects of Reptiles II

- 2.1. The Most Important Zoonoses
  - 2.1.1. Prevention and Protection
  - 2.1.2. Risk of Zoonosis from Handling
  - 2.1.3. Risk of Zoonosis from Ingesting
- 2.2. Dermal Diseases:
  - 2.2.1. Lesions: Trauma and Aggressions
  - 2.2.2. Dysecdysis: Alteration of Skin Shedding
  - 2.2.3. Thermal Burns Caused by a Lack of Information of the Owner
  - 2.2.4. Pyramiding: Deformation of the Shell
  - 2.2.5. Otic Abscesses: Habitual in Chelonians
  - 2.2.6. Ectoparasites.
  - 2.2.7. Hypovitaminosis A: Multifactorial Cause.
- 2.3. Digestive Alterations.
  - 2.3.1. Estomatitis: Very Common in Reptiles
  - 2.3.2. Intestinal Obstruction: Causes
  - 2.3.3. Hepatic Lipidosis: Obesity in Reptiles
  - 2.3.4. Internal Parasites: Different Species.
- 2.4. Other Pathologies
  - 2.4.1. Rhinitis: Dyspnea and Emergencies
  - 2.4.2. Pneumonia: The Deficient Mucociliary System of Their Lungs
  - 2.4.3. Renal Insufficiency: Very Common in Reptiles
  - 2.4.4 Gout: Multifactorial Cause
- 2.5. What Dose of a Drug to Use?
  - 2.5.1. Metabolic Energy Constant
  - 2.5.2. MEC (Metabolic Energy Constant) and SMEC (Specific Metabolic Energy Constant) Dose Values.
  - 2.5.3. Dose Examples

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- 2.8. Common Treatments.
  - 2.6.1. Antibiotics
  - 2.6.2. Disinfectants:
  - 2.6.3. Nutritional Treatments.
  - 2.6.4. Antimycotics
  - 2.6.5. Antiparasitics II
  - 2.6.6. Harmful Treatments.
- 2.7. The Success of Anesthesia
  - 2.7.1. Preanesthetic Evaluation.
  - 2.7.2. Pre-Medication
  - 2.7.3. Induction With Anesthetic Gas
    - 2.7.3.1. Types of Gases
    - 2.7.3.2. Anesthetic Circuitry.
  - 2.7.4. Anesthetic Recovery.
- 2.8. Techniques and Applications of Basic Surgery
  - 2.8.1. Esophagotomy.
  - 2.8.2. Intracellular access in Saurians and Ophidians: Celiotomy.
  - 2.8.3. Cloacal Replacement.
  - 2.8.4. Tympanic Removal Due to Abscesses
- 2.9. Advanced Surgical Techniques
  - 2.9.1. Cloaca or Penis Prolapse.
  - 2.9.2. Egg Retention
  - 2.9.3. Hepatic biopsy
  - 2.9.4. Renal Biopsy.
- 2.10. Common Orthopedic Surgeries
  - 2.10.1. Metabollic Bone Disease: SNHP (Secondary Nutritional Hyperparathyroidism)
  - 2.10.2. Tail Amputation
  - 2.10.3. Limb Amputation and Fractures
  - 2.10.4. Shell Fractures

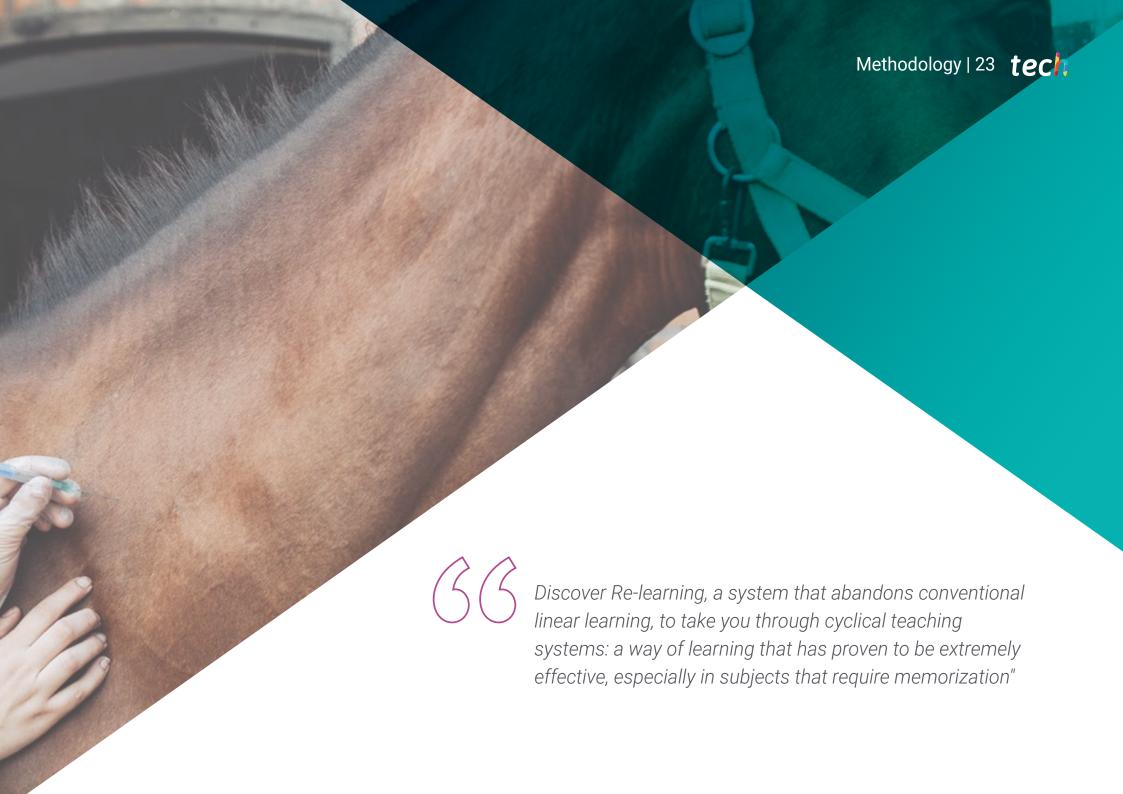




This training will allow you to advance in your career comfortably"





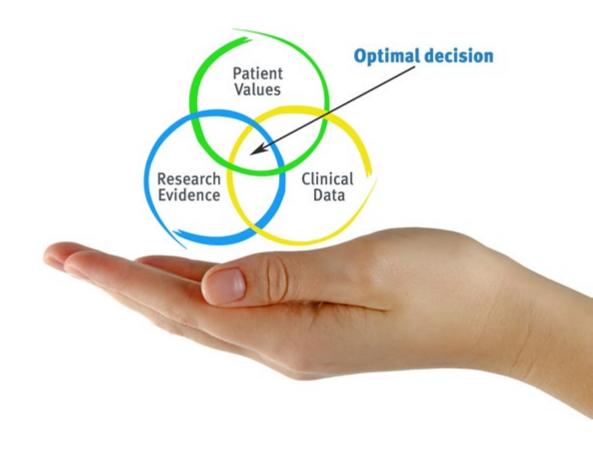


### tech 24 | Methodology

#### 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 abundant 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.



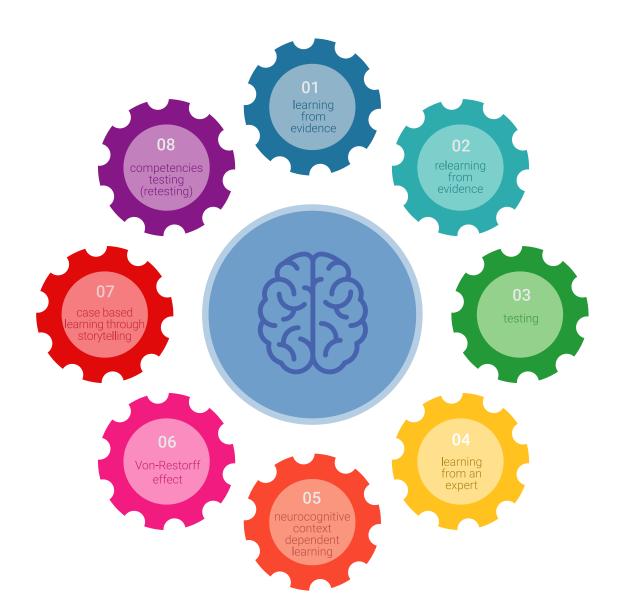


### **Re-Learning Methodology**

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-ofthe-art software to facilitate immersive learning.





### Methodology | 27 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.

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 highly 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**

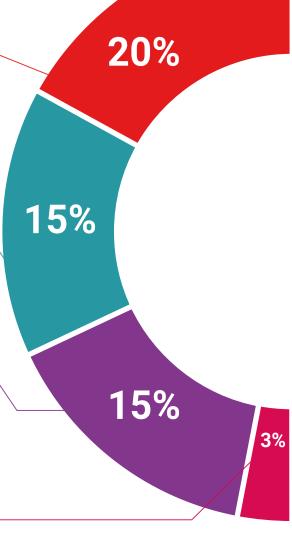
We bring you closer to the latest Techniques, to the latest Educational Advances, to the forefront of current Veterinary Techniques and Procedures. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as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

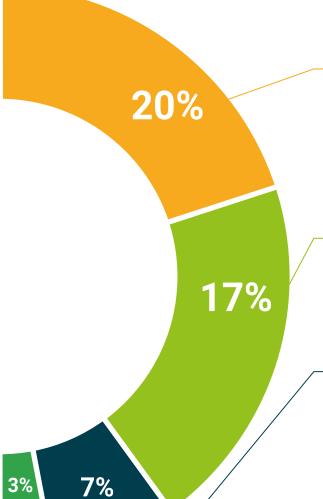
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **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 focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



### **Testing & Re-testing**

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.



Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.

#### **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.





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This program will allow you to obtain your **Postgraduate Certificate in Reptile Expert** 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 Reptile Expert

Modality: online

Duration: 12 weeks

Accreditation: 12 ECTS



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

#### **Postgraduate Certificate in Reptile Expert**

This is a program of 360 hours of duration equivalent to 12 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



<sup>\*</sup>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.

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



# Postgraduate Certificate Reptile Expert

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