



Soft Tissue Surgery and Orthopedic Surgery in Avian Patients

» Modality: online

» Duration: 12 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/soft-tissue-surgery-orthopedic-surgery-avian-patients

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tech 06 | Introduction

Anesthetic drug toxicity tends to occur when it is close to the correct therapeutic dose, so it is necessary to remember to adequately control the dose while clinically monitoring patients. These situations cannot be controlled when performing field immobilizations in wild birds and, therefore, the main objective is to perform major surgical interventions, reducing risk factors.

Furthermore, this Postgraduate Certificate also puts the focus on orthopedic interventions, which are becoming a useful tool for clinical veterinarians specialized in avian surgery, practitioners and residents in training, as well as for individuals dealing with comparative species, such as zoo medicine and interspecies surgery.

Determining the prognosis of a fracture is especially relevant when trying to reach a decision. One of the most important factors is the location of the fracture and the structures involved, as, for example, forelimb fractures are much more complex to resolve than hind limb fractures.

In exotic birds that present a fracture or traumatological problem and are going to be kept in captivity, the predominant option is not to intervene surgically, since it is not vital to maintain their flight capacity; only those fractures that affect the pelvic limbs and can affect their holding capacity are relevant.

On the contrary, in wild birds, the aim is to reintroduce them into the natural environment and, therefore, it is essential that their ability to fly is maintained intact, which is why managing fractures in these birds is crucial for their survival. This is also true for birds used in falconry, since it is paramount that they maintain their ability to fly in order to hunt.

In short, this training provides students with specific tools and skills to successfully develop their professional activity in the wide field of avian medicine and surgery. It addresses key competencies such as knowledge of the reality and daily practice of the veterinary professional, and develops responsibility in the monitoring and supervision of their work, as well as communication skills within the essential teamwork.

As it is an online Postgraduate Certificate, students will not be bound by fixed schedules or the need to commute to another location, but rather, they can access the content at any time of the day, balancing their professional or personal life with their academic life.

This Postgraduate Certificate in Soft Tissue Surgery and Orthopedic Surgery in Avian Patients contains the most complete and up-to-date scientific program on the market. The most important features include:

- Practical cases presented by experts in avian medicine
- 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 avian patient care
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in avian medicine
- 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 study this Postgraduate Certificate with us. It's the perfect opportunity to advance your career"



This Postgraduate Certificate is the best investment you can make when choosing a refresher program to expand your existing knowledge of the subject matter"

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.

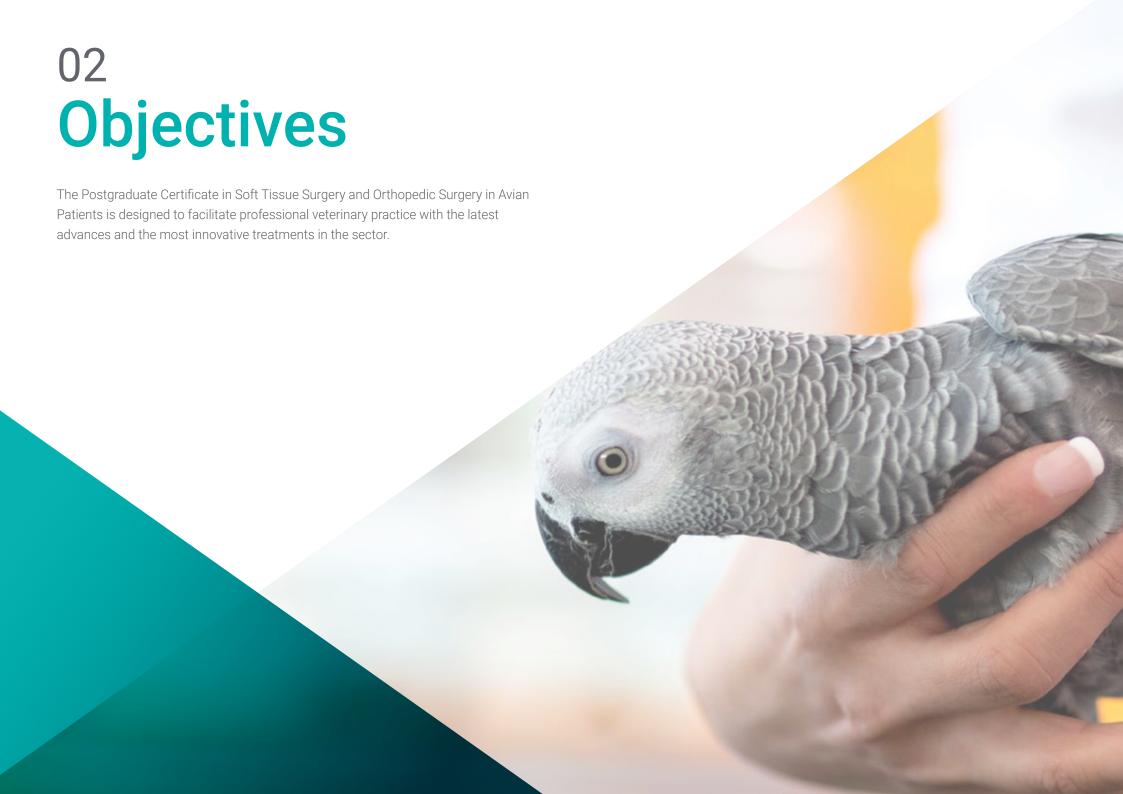
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the program. For this, the professional will have the help of an innovative interactive video system made by recognized experts in patient Medicine, and with great experience.

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 increasing your knowledge in this field.







tech 10 | Objectives



General Objectives

- Analyze the different anatomical and physiological aspects of birds to apply them to anesthetic techniques
- Examine emergencies in situations of hemorrhage and more advanced surgical problems
- Establish emergency protocols, as in any animal that is injured or needs surgical assistance
- Reach the shock state protocol, which is very difficult to determine in avian patients
- Develop specialized knowledge to properly treat fractures and determine prognosis
- Determine the proper praxis in resolving fractures in avian patients, using bandages and surgical methods of osteosynthesis, by means of external immobilizations, centromedullary interlocking, external fixators or locks
- Examine the most effective methods for treating each type of bird and potential fractures in terms of physical recovery and total recovery of the limb
- Analyze the different anatomical and physiological aspects of birds to apply them to the most effective treatments



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







Specific Objectives

- Develop specialized knowledge in soft tissue surgery, starting from supplies in the operating room prior to any surgery
- Determine the special surgical supplies for avian patients
- Establish the main surgical problems of the skin and its appendages
- Perform all surgical techniques on male and female reproductive systems
- Evaluate all surgeries of the digestive and respiratory systems, following comprehensive and updated protocols
- Demonstrate the need for biopsies to reach a definitive diagnosis
- Emphasize the necessary guidelines for patient recovery
- Develop specialized knowledge regarding the most frequent ocular pathologies and the most up-to-date treatments
- Analyze the most frequent pathologies in obese birds in captivity: nails
- Address bone fracture emergencies situations and treatments
- Establish bone fixation methods in wings and shoulder girdles
- Analyze the osseous injuries in bird carpus and tarsus
- Determine how to conduct bone repairs of the femur and their surgical treatments
- Gain in-depth knowledge of postoperative care in repaired fractures





tech 14 | Course Management

Management



Ms. 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 Program in Exotic Animals, Improve International
- Postgraduate degree in Food Safety from the Complutense University of Madrid
- Veterinary consultant at the José Peña Wildlife Center, and various veterinary clinics in Madric
- Director of the Exotic Animal Service at the Prado BOADILLA veterinarian center

Professors

Dr. Jaime Aquino, Sara

- Veterinary Assistance at Prado de Boadilla
- Collaborator in the Exotic Animal Medicine and Surgery Service at Alfonso X El Sabio University
- Nova Veterinary Clinic, Boadilla del Monte
- Degree in Veterinary Medicine Alfonso X El Sabio University

Dr. García Rodríguez, Jennifer

- Degree in Veterinary Medicine, Complutense University Madrid
- Diploma Course in Clinical Cardiology in Small Animals Complutense University of Madrid
- Intern at the Hospital Clínico Veterinario Complutense in the Cardiology, Anesthesiology and Ruminant Medicine Services
- Stays in the ONCE Guide Dog Foundation, and in zoos such as Selwo Aventura and Selwo Marina

Dr. Esteve, David

- Partner at Amvac
- Degree in Veterinary Medicine from the Complutense University of Madrid
- National Course in Endoscopy from CCMIJU
- Collaborator on the MasterClass of Traumatology in Exotic Mammals Forvetex

Dr. Corrales Mantecón, Diana

- Veterinary Clinic Exóticos
- Veterinary Clinic Veterinarios, Madrid
- Degree in Veterinary Medicine, Complutense University of Madrid 2018
- Organization of the fifth scientific conference on pathology and management of exotic, wild and zoo animals
- Collaborator in the organization and assistance for the AMVAC annual congress

Dr. Moraleda Berral, Pablo

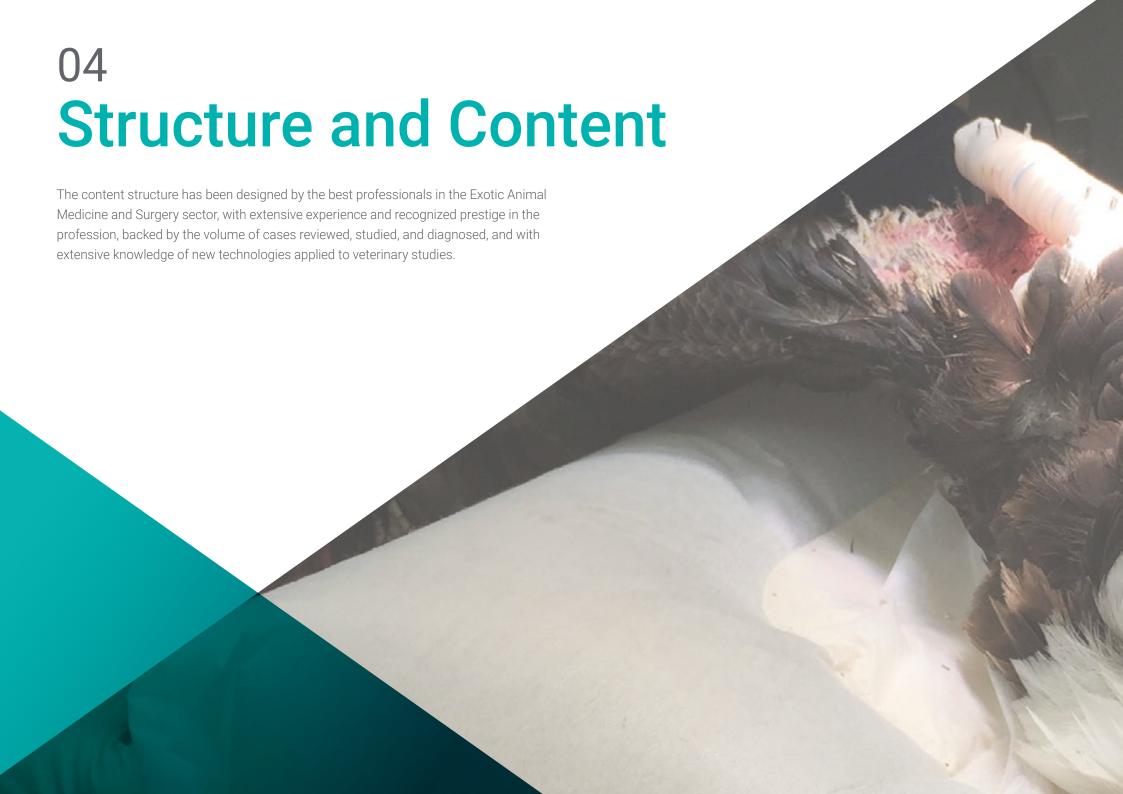
- Clinical Veterinarian at Exotic Veterinary Clinic
- Degree in Veterinary Medicine, University of Santiago de Compostela, 2018
- Degree Training in Exotic and Wild Animal Clinics, attending congresses, stays in specialized centers such as GREFA, CRAS, Bioparc Fuengirola, Faunia, etc.
- Certificate Degree in Exotic and Wild Animals Complutense University of Madrid
- Enrolled in the PhD program on Veterinary Medicine at UCM in the field of wildlife parasitology

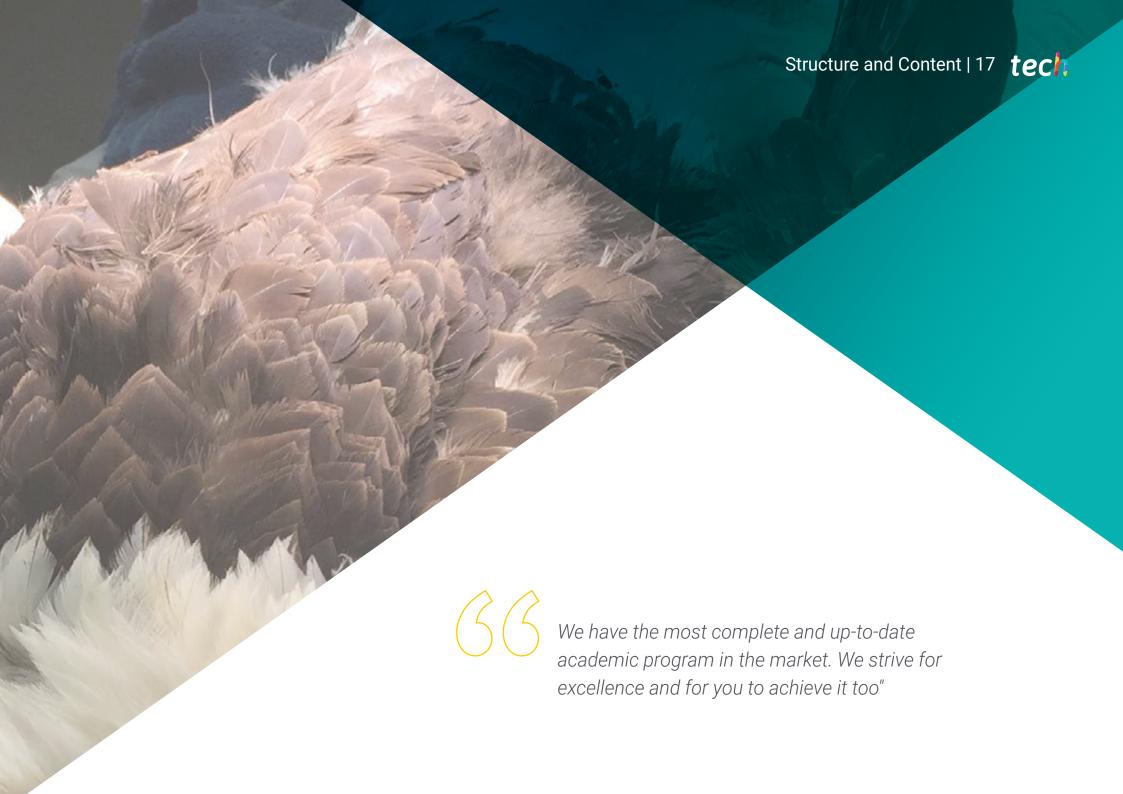
Dr. Fernández Boto, Rubén

- Clinical Veterinarian at Exotic Veterinary Clinic
- Member of AVEPA
- Degree in Veterinary Medicine from the UCM
- Postgraduate Certificate in Abdominal Ultrasound in Small Animals
- Update Course in Exotic Animal Medicine and Surgery

Dr. González Fernández-Cid, José Vicente

- Owner of the Exotic Veterinary Clinic in Fuenlabrada
- Lecturer on the Master's Degree in Exotic Animals organized by AEVA
- Professor on the Advanced Master's Degree in Exotic Animals organized by Forvetex
- Degree in Veterinary Medicine from the Complutense University of Madrid
- Speaker at the I AVEXYS Conference on exotic and wild animal medicine at Faunia
- Speaker at the I and II Conference on Wildlife and Exotic Animal Medicine, Faculty of Veterinary Medicine of Madrid





tech 18 | Structure and Content

Module 1. Anesthesia and Soft Tissue Surgery

1.1.2.2. Skin Preparation

1.1.	Soft Tis	ssue Surgery
	1.1.1.	Soft Tissue Surgeon in Birds
	1.1.2.	Patient Preparation
		1.1.2.1. Hypothermia.

1.1.3. Necessary Equipment

1.1.4. Sterile Cotton Balls

1.1.5. Bifocal Surgical Lenses

1.1.6. Microsurgery Tools

1.1.7. Suture Materials.

1.2. Special Surgical Supplies in Bird Surgery

1.2.1. Hemoclips

1.2.2. Radiosurgery

1.2.3. Surgical Lasers1.2.3.1. Most Used Types and Equipment

1.2.4. Microsurgery

1.3. Skin and Appendage Surgery

1.3.1. Feather Cysts

1.3.1.1. Plumafoliculoma

1.3.2. The Uropygian Gland

1.3.2.1. Most Common Pathologies

1.3.3. Wounds and Soft Tissue Injury Treatment

1.3.4. Most Common Neoplasms

1.3.4.1. Lipoma

1.3.4.2. Xanthoma

1.4. Reproductive System Techniques

1.4.1. Prior Patient Preparation

1.4.2. Sterilization.

1.4.3. Female Sterilization

1.4.3.1. Surgical Technique

1.4.4. Egg Obstruction in the Oviduct Dystocia in Birds

1.4.4.1. Cesarean Section: Egg Obstruction in the Oviduct

1.4.4.2. Uterine Torsion: Coeloma Inflammation

1.4.5. Orchidectomy

1.4.5.1. Anatomical Location of the Testicles: Intracellular

1.4.5.2. Technique

1.4.6. Testicular Endoscopic Biopsy

1.5. Gastrointestinal Tract Techniques I

1.5.1. The Tongue

1.5.1.1. Most Common Pathologies

1.5.2. The Proximal Esophagus

1.5.2.1. Esophageal Strictures: Causes and Treatments

1.5.2.2. Esophageal Trauma: Causes and Treatments

1.5.3. Ingluviotomy

1.5.3.1. Localization

1.5.3.2. Indications: Foreign Bodies.

1.5.4. Crop Burns

1.5.4.1. Pathology Origin

1.5.4.2. Adequate Surgical Technique

1.5.5. Others Surgical Techniques of Choice

1.6. Gastrointestinal Tract Techniques II

1.6.1. Crop or Esophagus Lacerations

1.6.1.1. Traumatic Diet: Causes and Treatments

1.6.1.2. External Trauma: Causes and Treatments

1.6.2. Ingluviostomy Tube Placement

1.6.2.1. Feeding Tube Indications

1.6.3. Celiotomy: Opening the Coelomic Cavity

1.6.3.1. Indications and Complications

1.6.3.2. Left Lateral Celiotomy

1.6.4. Others Surgical Techniques of Choice

1.7. Gastrointestinal Tract Techniques III

1.7.1. Proventriculotomy: Proventriculus or Ventricle Access

1.7.1.1. Indications

1.7.1.2. Surgical Techniques of Choice

1.7.2. Yolk Saculectomy: Newborn Chicks

1.7.2.1. Indications

1.7.2.2. Surgical Techniques of Choice

173	Enterotomy
1.7.0.	1.7.3.1. Cases Where Enterotomy Is Necessary
	1.7.3.2. Type of Surgery to Applied
1.7.4.	
	1.7.4.1. Clinical Situations
	1.7.4.2. Surgical Process
1.7.5.	Ventral Midline Celiotomy
	1.7.5.1. Indication This Type of Surgical Access
	1.7.5.2. Approaches
1.7.6.	Cloaca Disorders
	1.7.6.1. Prolapsed Organs through the Cloaca
	1.7.6.2. Cloacolito
Magne	tic Biopsy Procedures
1.8.1.	Hepatic Biopsy
	1.8.1.1. Indication This Type of Surgical Access
	1.8.1.2. Approach
1.8.2.	Pancreatic Biopsy.
	1.8.2.1. Pancreatic Alterations
	1.8.2.2. Surgical Indications
1.8.3.	Renal Biopsy
	1.8.3.1. Indications
	1.8.3.2. Necessary Technical Resources
	1.8.3.3. Technique and Approach
Respira	atory Surgical Techniques
1.9.1.	Respiratory Surgery
	1.9.1.1. Necessary Anatomy Recap
1.9.2.	Tracheotomy
	1.9.2.1. Indications
	1.9.2.1.1. Presence of Aspergillomas and Foreign Bodies
	1.9.2.2. Surgical Technique
1.9.3.	
	1.9.3.1. Indications: Severe Tracheal Stenosis
	1.9.3.2. Surgical Technique

1.8.

1.9.

	1.9.4.	Pulmonary Biopsy
		1.9.4.1. Indications: Severe Tracheal Stenosis
		1.9.4.2. Surgical Technique
	1.9.5.	Muting in Birds
		1.9.5.1. Ethical Considerations
1.10.	Postope	erative Care
	1.10.1.	Stressful Situations
	1.10.2.	Thermal Recovery and Maintenance
	1.10.3.	Hospitalization and Swift Recovery
	1.10.4.	Self-Trauma Prevention
	1.10.5.	Postoperative Analgesia
	1.10.6.	Adequate Fluid Therapy
	1.10.7.	Nutritional Supplements
Mod	ule 2. (Orthopedic and Ophthalmologic Surgery in Birds
2.1.	Avian O	phthalmology: Eye and Eyelid Lesions
	2.1.1.	Anatomy Recap
	2.1.2.	Differences Between Species
		Eyeball Pathophysiology
	2.1.4.	Most Used Treatments
2.2.	Podode	rmatitis: Nails
	2.2.1.	Pathology Characteristics
	2.2.2.	Most Affected Bird Species
	2.2.3.	Current Treatments
		2.2.3.1. Medical Treatment
		2.2.3.2. Surgical Management
		2.2.3.2.1. Necrotic Debridement
	2.2.4.	Prevention
	2.2.5.	Treatment
2.3.	3. Fractures: Bone Definition Loss	
	2.3.1.	Bird Skeletons
	2.3.2.	Necessary Surgical Supplies and Preliminary Technical Considerations
	2.3.3.	Physical Examination and Preoperative Management of Avian Patients
	2.3.4.	Types of Bone Fractures and Dislocations

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2.4.	Fracture Correction: Fracture Treatment Objectives		
	2.4.1.	Osteosynthesis Techniques in Birds	
		2.4.1.1. Advantages	
		2.4.1.2. Inconveniences	
	2.4.2.	Internal Fastening	
		2.4.2.1. Medullary Nailing (Intramedullary or Centromedullary)	
		2.4.2.2. Banding	
	2.4.3.	External Fastening: Bone Scaffolds	
		2.4.3.1. The Kirschnner-Ehmer Splint	
2.5.	Fastening Methods Humerus, Clavicle and Coracoid Fractures		
	2.5.1.	Shoulder Girdle and Forelimb Anatomy	
	2.5.2.	Humerus Fractures	
	2.5.3.	Fastening Method for Distal and Subcondylar Humerus Fractures	
		2.5.3.1. Crossed Needles	
2.6.	Fastening Methods for Diaphyseal Forelimb Fractures		
	2.6.1.	Relevant Aspects	
	2.6.2.	Needles Placement in Different Fasteners	
	2.6.3.	Proximal Ulnar Diaphysis Fractures, with Intact or Fractured Radius	
	2.6.4.	Diaphyseal and Distal Ulnar Fractures, with Intact or Fractured Radius	
	2.6.5.	Special Forelimb Cases	
		2.6.5.1. Proximally or Distally Fractured Radius	
		2.6.5.2. Intact Ulna	
	2.6.6.	Elbow Dislocations	
2.7.	Fastening Methods of the Carpus and Tarsus		
	2.7.1.	Fastening the Carpal Joint	
		2.7.1.1. Relevant Aspects	
		2.7.1.2. Specific Treatment Recommendations	
	2.7.2.	Fastening Tibiotarsus Fractures	
		2.7.2.1. Relevant Aspects	
		2.7.2.2. Tibiotarsus Fractures and Surgical Stabilization	
	2.7.3.	Fastening Choices for Tarsometatarsal Fractures	





Structure and Content | 21 tech

2.8. Fastening Methods and Orthopedic Femur Pathologies

2.8.1. Relevant Aspects

2.8.2. Femur Fractures

2.8.2.1. Surgical Stabilization

2.8.3. Knee Dislocation

2.8.3.1. Choice Treatment

2.9. Less Common Bone Injuries

2.9.1. Neck Dislocation and Fracture

2.9.1.1. Symptoms, Diagnosis and Treatment

2.9.2. Keel Injuries

2.9.2.1. Pathology

2.9.2.2. Treatment

2.9.3. Wing Tip Injuries

2.9.3.1. Wing Wounds and Ulcers

2.9.3.1.1. Types of Wounds and Treatment

2.9.3.2. Bursitis

2.9.3.2.1. Symptoms and Treatment

2.9.3.3. Edema and Dry Gangrene Syndrome: Avascular Necrosis

2.9.3.3.1. Localization

2.9.3.3.2. Symptoms and Treatment

2.10. Postoperative Patient Care for Repaired Fractures

2.10.1. Physical Therapy for Wing Fracture Treatment

2.10.2. Patagium Treatment

2.10.3. Physical Rehabilitation and Physiotherapy in Birds



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



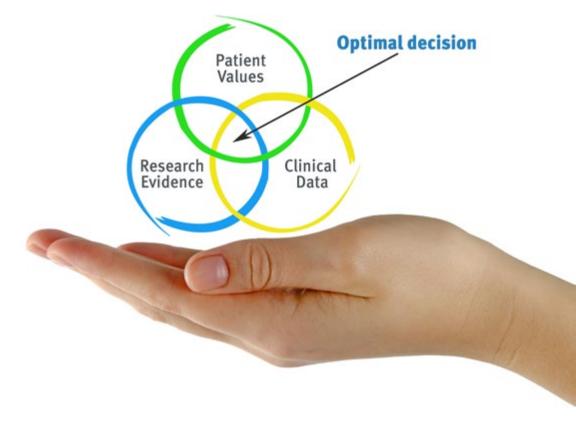


tech 24 | Methodology

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.



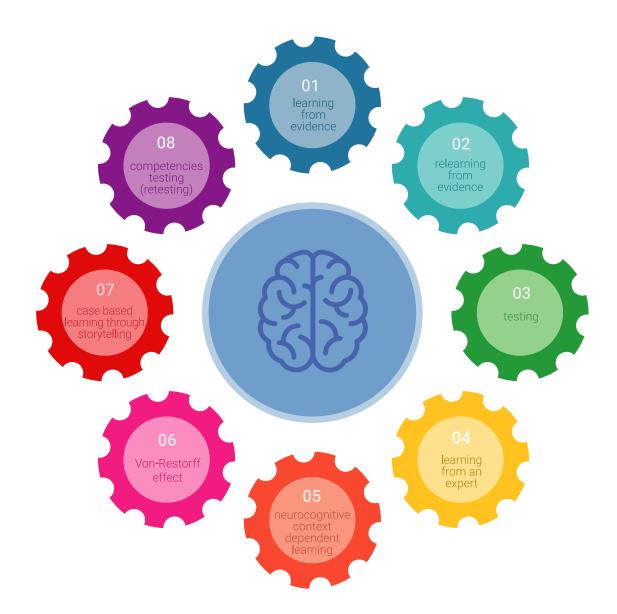


Relearning Methodology

At TECH we enhance the 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 | 27 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

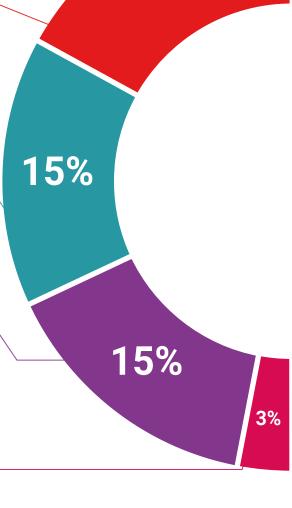
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch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



Effective learning ought to be contextual. Therefore, TECH presents real cases in which

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 their goals.





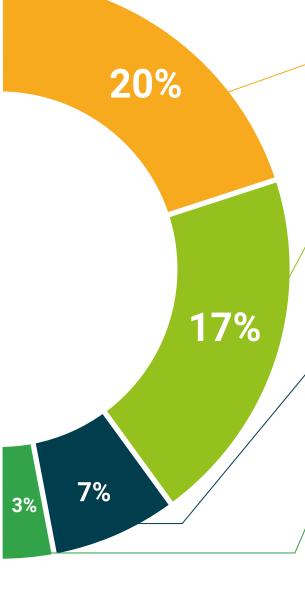
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







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This **Postgraduate Certificate in Soft Tissue Surgery and Orthopedic Surgery in Avian Patients** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, 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 Soft Tissue Surgery and Orthopedic Surgery in Avian Patients

Official N° of Hours: 300 h.



^{*}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.

technological university



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