

# Postgraduate Certificate

## Anesthesia and Surgery in Avian Patients





## Postgraduate Certificate Anesthesia and 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.techtute.com/us/veterinary-medicine/postgraduate-certificate/anesthesia-surgery-avian-patients](http://www.techtute.com/us/veterinary-medicine/postgraduate-certificate/anesthesia-surgery-avian-patients)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

Here, students can acquire the most updated knowledge of anesthesia and avian surgery to be able to perform successful interventions in avian patients, so as to achieve effective results in curing their diseases, and thus improving their quality of life. For that purpose, TECH has designed this complete program that will allow students to give a boost to their careers.







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*We offer you a very complete training in avian surgery so you can specialize in this veterinary field and give a boost to your career”*

This Postgraduate Certificate in Anesthesia and Surgery in Avian Patients has been designed by a team of specialists on the subject with years of professional and teaching experience, who have selected the main concepts and theories in the field to offer veterinary professionals the most complete training possible.

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. If a bird is incapacitated to the point that it cannot respond, it does not mean that it is not experiencing pain. Overwhelming scientific evidence supports that animals can experience or feel pain, negatively affecting their quality of life. Therefore, this program discusses avian analgesia in depth.

Furthermore, monitoring will be an essential aspect in patient immobilization and anesthesia. The objectives are to detect physiological changes in time to correct irreversible injuries, to ensure adequate anesthetic depth and to evaluate the effectiveness of supportive care.

Thus, this training is intended to provide veterinarians with the necessary tools to perform successful surgical interventions on avian patients, while acquiring the most up-to-date knowledge of tools required and anesthetic techniques.

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 veterinary professionals, 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 program, students will not be bound by fixed schedules or the need to move to another physical 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 Anesthesia and 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 training 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”*

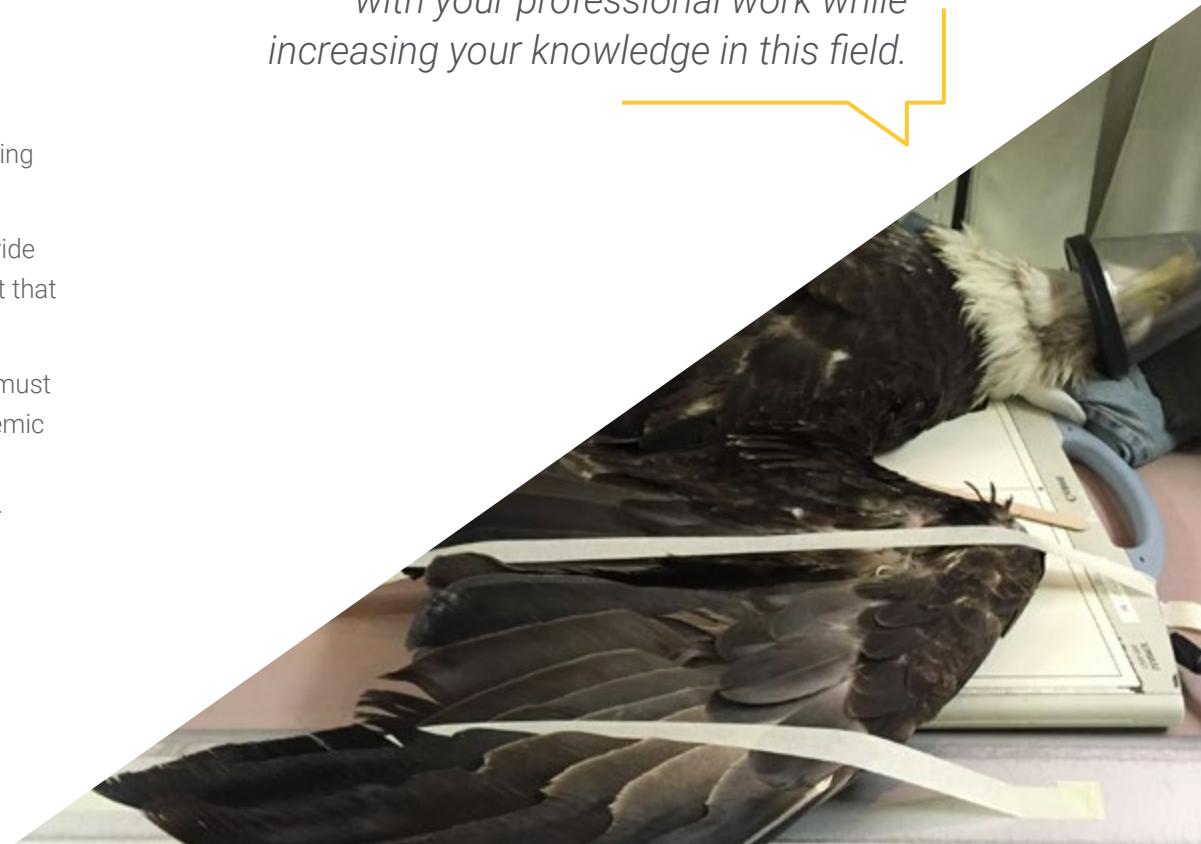
Its teaching staff includes professionals from the veterinary field, who bring the experience of their work to this training, as well as recognized specialists from leading societies and prestigious universities.

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 specialist must try to solve the different professional practice situations that arise during the academic year. 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 program's degree will allow you to combine your studies with your professional work while increasing your knowledge in this field.*



02

# Objectives

The Postgraduate Certificate in Anesthesia and Surgery in Avian Patients is designed to facilitate professional veterinary practice with the latest advances and most innovative procedures in the sector.







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*This is the best option to learn about the latest advances in bird medicine and surgery”*



## General Objectives

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- Generate specialized knowledge of anesthetic techniques commonly used in bird clinics
- Develop the most important aspects about the types of anesthesia and frequently asked questions by veterinarians
- Analyze management techniques for exploration and anesthetic drug administration
- Determine the most common emergency situations
- 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



*Join one of the largest online universities in the world"*







## Specific Objectives

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- ◆ Determine the anatomical and physiological characteristics of birds to adequately perform anesthetic procedures
- ◆ Perform the anesthetic technique of choice: inhalation anesthesia
- ◆ Generate specialized knowledge on cardiorespiratory monitoring and temperature control during and after anesthetic procedures
- ◆ Examine injectable anesthesia in birds
- ◆ Perform the most up-to-date methods for local anesthesia and analgesia
- ◆ Implement the most frequent emergency anesthetics to deal with them successfully
- ◆ Determine the anesthetic particularities of each type of bird
- ◆ 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

03

# Course Management

The program's teaching staff includes leading experts in Avian Medicine and Surgery, who contribute their vast work experience to this training program. Professionals of recognized prestige have joined forces to offer you this high-level training.







“

*Our teaching team will help you  
achieve professional success”*

## 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 Programme 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 Madrid.
- ♦ Director of the Exotic Animal Service at the Prado BOADILLA veterinarian center

## Professors

### Dr. Fernández Gallardo, Nuhacet

- ♦ Director of the Veterinary Services and Laboratory of Loro Parque and Loro Parque Fundación
- ♦ Member of the Working Group on Exotic Animal Medicine and Surgery (GMCAE) of the Association of Small Animal Veterinarians (AVEPA)

### Ms. 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



**Mr. Sánchez Góngora, Juan**

- ◆ Veterinarian at Clinique Vétérinaire de l'Epte, Gisors
- ◆ Degree in Veterinary Medicine, Complutense University Madrid
- ◆ Speaker at the XVII Congress of Veterinary and Biomedical Sciences in relation to Bacterial Stomatitis in Chameleons *Calumma parsonii* in Captivity
- ◆ External stays at ZooAquarium, Madrid

**Dr. Manzanares Ferrer, Estefanía**

- ◆ Veterinarian at Los Sauces Veterinary Center
- ◆ Graduate in Veterinary Medicine, University of Santiago de Compostela
- ◆ Master's Degree in Exotic Animal Medicine and Surgery, Servet Oriental Training
- ◆ Superior technician in the management and organization of agricultural enterprises, School of Agricultural Training
- ◆ Course in Veterinary Medicine and Wildlife Conservation



04

# Structure and Content

The content structure has been designed by the best professionals in the Exotic Animal Medicine and Surgery sector, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, with extensive knowledge of new technologies applied to veterinary studies.







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*We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too”*

## Module 1. Anesthesia and Analgesia in Birds

- 1.1. Anatomical and Physiological Characteristics in Avian Anesthesia
  - 1.1.1. Anatomical Characteristics: Air Sacs
  - 1.1.2. Physiological Considerations
    - 1.1.2.1. Inspiration and Expiration
    - 1.1.2.2. Ventilation Triggers
    - 1.1.2.3. Hypoglycemia
  - 1.1.3. Pharmacokinetic and Pharmacodynamic Characteristics Avian Patients
- 1.2. Administering Distant Anesthesia
  - 1.2.1. Handler Safety
  - 1.2.2. Cooperating Birds: Adequate Management
    - 1.2.2.1. Administering Anesthesia Routes and Techniques
  - 1.2.3. Uncooperative Birds: Wild Birds
    - 1.2.3.1. Administering Anesthesia Techniques
    - 1.2.3.2. Darts
    - 1.2.3.3. Other Mechanisms
  - 1.2.4. Stress Prior to Administering Anesthesia
    - 1.2.4.1. Activating the Sympathetic Nervous System
    - 1.2.4.2. Other Hormonal Changes
    - 1.2.4.3. How to Measure Stress
    - 1.2.4.4. Physiological Effects Caused by Capture
- 1.3. Anesthesia Inhalation in Birds: The Anesthesia of Choice
  - 1.3.1. Anesthesia Equipment Technical Considerations
    - 1.3.1.1. Gases and Vapors
      - 1.3.1.1.1. Isoflorane, Sevoflorane and Other Anesthetic Gases
  - 1.3.2. Endotracheal Intubation
  - 1.3.3. Air Sac Intubation
    - 1.3.3.1. Exceptional Intubation
- 1.4. Monitoring during Anesthesia
  - 1.4.1. Reflexes
  - 1.4.2. Circulatory Volume
  - 1.4.3. Pain
  - 1.4.4. Cardiovascular Monitoring
    - 1.4.4.1. Cardiac Suscultation
    - 1.4.4.2. Capillary Refill Time
    - 1.4.4.3. Electrocardiograms
    - 1.4.4.4. Doppler Cardiac Monitoring or Echocardiography
    - 1.4.4.5. Other Monitoring Techniques
    - 1.4.4.6. Intravenous Fluid Therapy
      - 1.4.4.6.1. Crystalloids and Colloids
  - 1.4.5. Respiratory Monitoring
    - 1.4.5.1. Respiratory Auscultation
    - 1.4.5.2. Pulse Oximetry
    - 1.4.5.3. Capnography
  - 1.4.6. Temperature Monitoring: Hypothermia and Hyperthermia
    - 1.4.6.1. Body Temperature Loss during Surgery: Monitoring and Prevention
    - 1.4.6.2. The Consequences of Hypothermia
    - 1.4.6.3. Hyperthermia
      - 1.4.6.3.1. Prevention and Treatment.
- 1.5. Injectable Anesthesia
  - 1.5.1. Anesthetic Perfection
  - 1.5.2. Dissociative Anesthetics
  - 1.5.3. Opioids
  - 1.5.4. Anesthesia in Field Conditions
  - 1.5.5. Hypothermia
    - 1.5.5.1. Important Aspects in Preventing and Reducing Heat Loss during Anesthesia
- 1.6. Local Anesthesia and Analgesia
  - 1.6.1. Local Anesthesia
    - 1.6.1.1. Cardiovascular Monitoring
    - 1.6.1.2. Drugs Used
    - 1.6.1.3. Therapy Options
  - 1.6.2. Analgesia
    - 1.6.2.1. Types of Pain: Analgesia
    - 1.6.2.2. Physiological Sensitivity in Birds
    - 1.6.2.3. Analgesic Drugs
      - 1.6.2.3.1. Acetylsalicylic Acid
      - 1.6.2.3.2. Buprenorphine Hydrochloride
      - 1.6.2.3.3. Butorphanol

- 1.6.2.3.4. Flunixin-Meglumine
- 1.6.2.3.5. Carprofen
- 1.6.2.3.6. Ketoprofen
- 1.6.2.3.7. Copper Indomethacin
- 1.6.2.3.8. Meloxicam
- 1.6.2.3.9. Other Analgesics
- 1.7. Anesthetic Emergencies
  - 1.7.1. Respiratory Complications during Anesthesia
    - 1.7.1.1. Respiratory Depression
    - 1.7.1.2. Apnea and Respiratory Arrest
    - 1.7.1.3. Airway Obstruction
    - 1.7.1.4. Hyperventilation
    - 1.7.1.5. Hypoxia
  - 1.7.2. Specific Cardiovascular Complications during Anesthesia
    - 1.7.2.1. Bradycardia
    - 1.7.2.2. Tachycardia
    - 1.7.2.3. Hypotension
    - 1.7.2.4. Hypertension
    - 1.7.2.5. Arrhythmias
    - 1.7.2.6. Cardiac Arrest
  - 1.7.3. Hemorrhaging in Avian Patients during Anesthesia
- 1.8. Anesthesia in Caged Birds: Psittaciformes and Passeriformes
  - 1.8.1. Anatomical and Physiological Considerations
  - 1.8.2. The Cardiovascular System
  - 1.8.3. Thermoregulation
  - 1.8.4. Respiratory Ventilation Systems
  - 1.8.5. Preanesthetic Evaluation in Birds
  - 1.8.6. Anesthetic Procedures
  - 1.8.7. Types of Anesthetics Used
  - 1.8.8. Local Anesthesia and Analgesia

- 1.9. Anesthesia in Aquatic and Semiaquatic Birds
  - 1.9.1. Patients: Aquatic and Semiaquatic Birds
  - 1.9.2. Physiological Constants Monitoring
  - 1.9.3. Thermoregulation
  - 1.9.4. Anesthetic Procedures
  - 1.9.5. Types of Anesthetics Used
  - 1.9.6. Local Anesthesia and Analgesia
- 1.10. Other Anesthetic Particularities
  - 1.10.1. Anesthetic Particularities in Ratites
    - 1.10.1.1. Anatomical and Physiological Considerations
    - 1.10.1.2. Anesthetic Procedures
    - 1.10.1.3. Types of Anesthetics
    - 1.10.1.4. Local Anesthesia and Analgesia
  - 1.10.2. Anesthesia in Galliforms
  - 1.10.3. Anesthesia in Falconiformes
  - 1.10.4. Euthanasia: A Humane Act
    - 1.10.4.1. Special considerations

## Module 2. Anesthesia and Soft Tissue Surgery

- 2.1. Soft Tissue Surgery
  - 2.1.1. Soft Tissue Surgeon in Birds
  - 2.1.2. Patient Preparation
    - 2.1.2.1. Hypothermia.
    - 2.1.2.2. Skin Preparation
  - 2.1.3. Necessary Equipment
  - 2.1.4. Sterile Cotton Balls
  - 2.1.5. Bifocal Surgical Lenses
  - 2.1.6. Microsurgery Tools
  - 2.1.7. Suture Materials.
- 2.2. Special Surgical Supplies in Bird Surgery
  - 2.2.1. Hemoclips
  - 2.2.2. Radiosurgery
  - 2.2.3. Surgical Lasers
    - 2.2.3.1. Most Used Types and Equipment
  - 2.2.4. Microsurgery

- 2.3. Skin and Appendage Surgery
  - 2.3.1. Feather Cysts
    - 2.3.1.1. Plumafoliculoma
  - 2.3.2. The Uropygian Gland
    - 2.3.2.1. Most Common Pathologies
  - 2.3.3. Wounds and Soft Tissue Injury Treatment
  - 2.3.4. Most Common Neoplasms
    - 2.3.4.1. Lipoma
    - 2.3.4.2. Xanthoma
- 2.4. Reproductive System Techniques
  - 2.4.1. Prior Patient Preparation
  - 2.4.2. Sterilization.
  - 2.4.3. Female Sterilization
    - 2.4.3.1. Surgical Technique
  - 2.4.4. Egg Obstruction in the Oviduct Dystocia in Birds
    - 2.4.4.1. Cesarean Section: Egg Obstruction in the Oviduct
    - 2.4.4.2. Uterine Torsion: Coeloma Inflammation
  - 2.4.5. Orchidectomy
    - 2.4.5.1. Anatomical Location of the Testicles: Intracellular
    - 2.4.5.2. Technique
  - 2.4.6. Testicular Endoscopic Biopsy
- 2.5. Gastrointestinal Tract Techniques I
  - 2.5.1. The Tongue
    - 2.5.1.1. Most Common Pathologies
  - 2.5.2. The Proximal Esophagus
    - 2.5.2.1. Esophageal Strictures: Causes and Treatments
    - 2.5.2.2. Esophageal Trauma: Causes and Treatments
  - 2.5.3. Inguviotomy
    - 2.5.3.1. Localization
    - 2.5.3.2. Indications: Foreign Bodies.
  - 2.5.4. Crop Burns
    - 2.5.4.1. Pathology Origin
    - 2.5.4.2. Adequate Surgical Technique
  - 2.5.5. Others Surgical Techniques of Choice
- 2.6. Gastrointestinal Tract Techniques II
  - 2.6.1. Crop or Esophagus Lacerations
    - 2.6.1.1. Traumatic Diet: Causes and Treatments
    - 2.6.1.2. External Trauma: Causes and Treatments
  - 2.6.2. Inguviostomy Tube Placement
    - 2.6.2.1. Feeding Tube Indications
  - 2.6.3. Celiotomy: Opening the Coelomic Cavity
    - 2.6.3.1. Indications and Complications
    - 2.6.3.2. Left Lateral Celiotomy
  - 2.6.4. Others Surgical Techniques of Choice
- 2.7. Gastrointestinal Tract Techniques III
  - 2.7.1. Proventriculotomy: Proventriculus or Ventricle Access
    - 2.7.1.1. Indications
    - 2.7.1.2. Surgical Techniques of Choice
  - 2.7.2. Yolk Saculectomy: Newborn Chicks
    - 2.7.2.1. Indications
    - 2.7.2.2. Surgical Techniques of Choice
  - 2.7.3. Enterotomy
    - 2.7.3.1. Cases Where Enterotomy Is Necessary
    - 2.7.3.2. Type of Surgery to Applied
  - 2.7.4. Enterectomy: Intestinal Anastomosis
    - 2.7.4.1. Clinical Situations
    - 2.7.4.2. Surgical Process
  - 2.7.5. Ventral Midline Celiotomy
    - 2.7.5.1. Indication This Type of Surgical Access
    - 2.7.5.2. Approaches
  - 2.7.6. Cloaca Disorders
    - 2.7.6.1. Prolapsed Organs through the Cloaca
    - 2.7.6.2. Cloacolitho





- 2.8. Magnetic Biopsy Procedures
  - 2.8.1. Hepatic Biopsy
    - 2.8.1.1. Indication This Type of Surgical Access
    - 2.8.1.2. Approach
  - 2.8.2. Pancreatic Biopsy.
    - 2.8.2.1. Pancreatic Alterations
    - 2.8.2.2. Surgical Indications
  - 2.8.3. Renal Biopsy
    - 2.8.3.1. Indications
    - 2.8.3.2. Necessary Technical Resources
    - 2.8.3.3. Technique and Approach
- 2.9. Respiratory Surgical Techniques
  - 2.9.1. Respiratory Surgery
    - 2.9.1.1. Necessary Anatomy Recap
  - 2.9.2. Tracheotomy
    - 2.9.2.1. Indications
      - 2.9.2.1.1. Presence of Aspergillomas and Foreign Bodies
    - 2.9.2.2. Surgical Technique
  - 2.9.3. Tracheotomy
    - 2.9.3.1. Indications: Severe Tracheal Stenosis
    - 2.9.3.2. Surgical Technique
  - 2.9.4. Pulmonary Biopsy
    - 2.9.4.1. Indications: Severe Tracheal Stenosis
    - 2.9.4.2. Surgical Technique
  - 2.9.5. Muting in Birds
    - 2.9.5.1. Ethical Considerations
- 2.10. Postoperative Care
  - 2.10.1. Stressful Situations
  - 2.10.2. Thermal Recovery and Maintenance
  - 2.10.3. Hospitalization and Swift Recovery
  - 2.10.4. Self-Trauma Prevention
  - 2.10.5. Postoperative Analgesia
  - 2.10.6. Adequate Fluid Therapy
  - 2.10.7. Nutritional Supplements

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# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.







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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a veterinarian's professional practice.



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*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.*

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

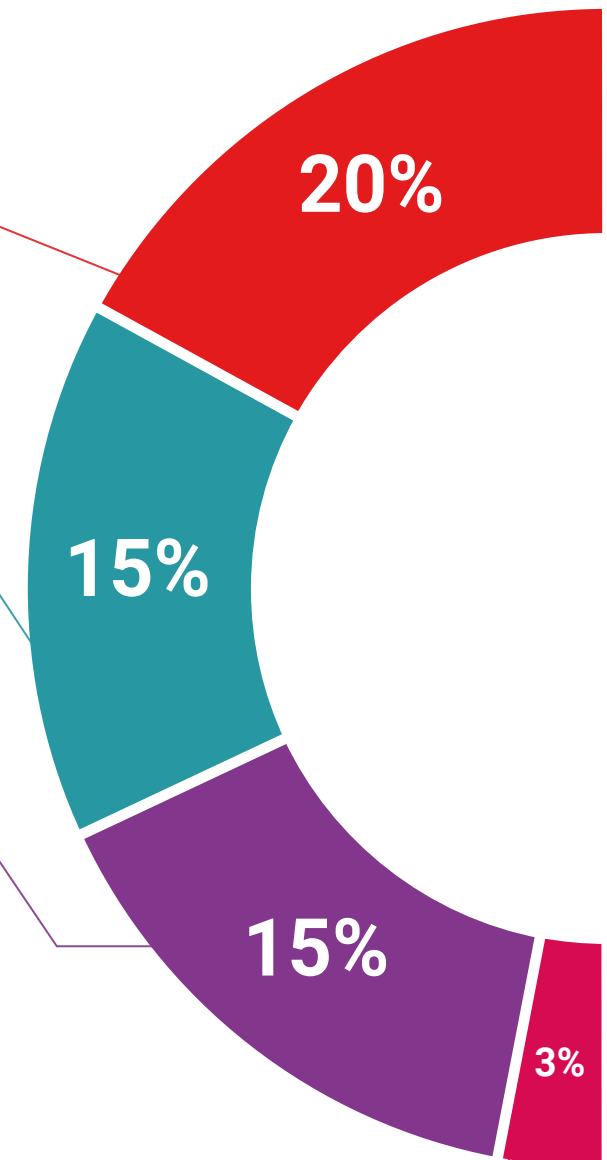
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.







**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 their goals.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.  
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



**Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Anesthesia and Surgery in Avian Patients guarantees students, in addition to the most rigorous and up-to-date education, access to a qualification issued by TECH Technological University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*



This **Postgraduate Certificate in Anesthesia and 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 diploma 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 Anesthesia and Surgery in Avian Patients**

Official Number of Hours: **300 h.**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



## Postgraduate Certificate Anesthesia and Surgery in Avian Patients

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

## Anesthesia and Surgery in Avian Patients

