



Postgraduate Certificate Pathology and Disease 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/us/veterinary-medicine/postgraduate-certificate/pathology-disease-avian-patients

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tech 06 | Introduction

Birds are susceptible to a wide variety of diseases, so knowing the type of bird, its anatomy and how it should be handled is fundamental in daily practice as specialized veterinarians, which will help understand the susceptibility of different birds to different diseases.

This program presents specialized knowledge of the different pathologies, such as those derived from incorrect handling, like capture paresis, a syndrome caused by the stress produced during the capture of wild birds. It also studies the complete physiopathogenesis and the changes produced in the animal, which cause so many deaths that could be avoided by incorporating the latest knowledge available.

Specifically, avian pathology is summarized in two large groups: infectious diseases: viral, bacterial, mycoplasmic, fungal and parasitic; and non-infectious diseases: genetic, metabolic-endocrine, anatomical alterations, physical-chemical imbalances and nutritional deficiencies.

This program also includes the study of diseases present in wild birds, since veterinarians specialized in this type of birds must be qualified to perform all rescue tasks, clinical care and animal reception, diagnostic techniques and interpretation of results, as well as the use of up-to-date treatments that will be developed throughout this module.

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 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 Pathology and Disease 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 used 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"

Introduction | 07 tech



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.

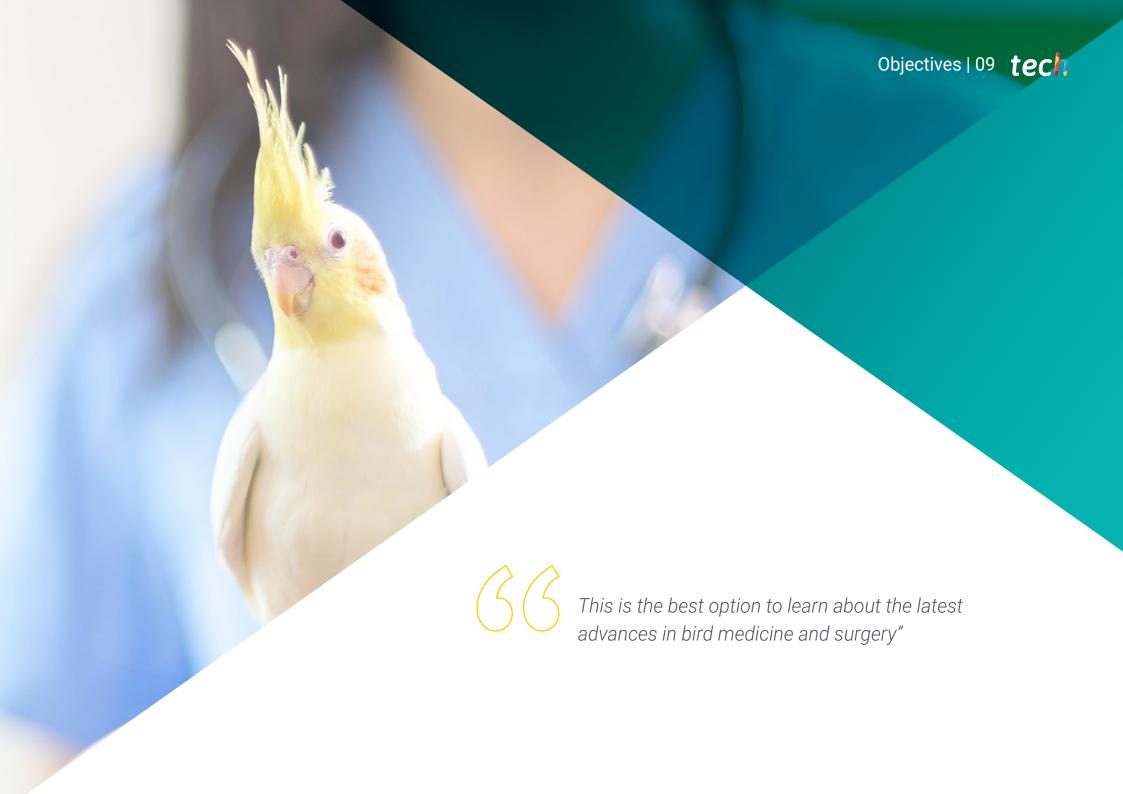
This 100% online Postgraduate Certificate will allow you to combine your studies with your professional work while increasing your knowledge in this field.



02 **Objectives**

The Postgraduate Certificate in Pathology and Disease 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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General Objectives

- Analyze the main infectious pathologies in birds: Viral, bacterial, mycoplasmic, fungal and parasitic
- Develop specialized knowledge of non-infectious pathologies: genetic, metabolic-endocrine, anatomical alterations, physical-chemical imbalances and nutritional deficiencies
- Define soft tissue pathologies
- Specify treatments and prevention strategies
- Develop specialized knowledge of diseases in birds according to cause, epizootiology and physiopathogenesis
- Determine the close relationship between humans and wild birds
- Identify the routes of disease transmission
- Analyze the most frequent questions that arise in field situations









Specific Objectives

- Identify symptoms to be able to detect them in time and act as soon as possible.
- Examine the main pathologies derived caused by incorrect handling to avoid them and even prevent death
- Analyze the most frequent emergencies derived from incorrect handling, such as lead poisoning and capture myopathy
- Specify oral cavity disorders and their most appropriate treatments
- Completely and successfully deal with all the pathologies affecting the crop, the proventriculus and the ventriculus
- Delve deeper into all the most common pathologies affecting the distal part of the intestine
- Analyze liver disorders due to external causes, as well as the typical pathologies they
 present
- Develop specialized knowledge of the great avian unknown: The endocrine system, analyzing each of the endocrine glands in birds and their physiopathogenesis
- Identify the cause of the disease through causal agents
- Develop specialized knowledge of the most common diseases in wild birds
- Make the best use of a list of problems, together with their differential diagnoses to properly design work plans
- Develop the most important viral diseases in wild bird pathologies, understanding that they are the most serious
- Diagnose diseases caused by bacteria, since they are mostly linked to respiratory infections, blood infections, intestinal infections or a combination of any of them
- Analyze parasitic diseases, their symptomatology and the most updated treatments







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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 Madric
- Director of the Exotic Animal Service at the Prado BOADILLA veterinarian center

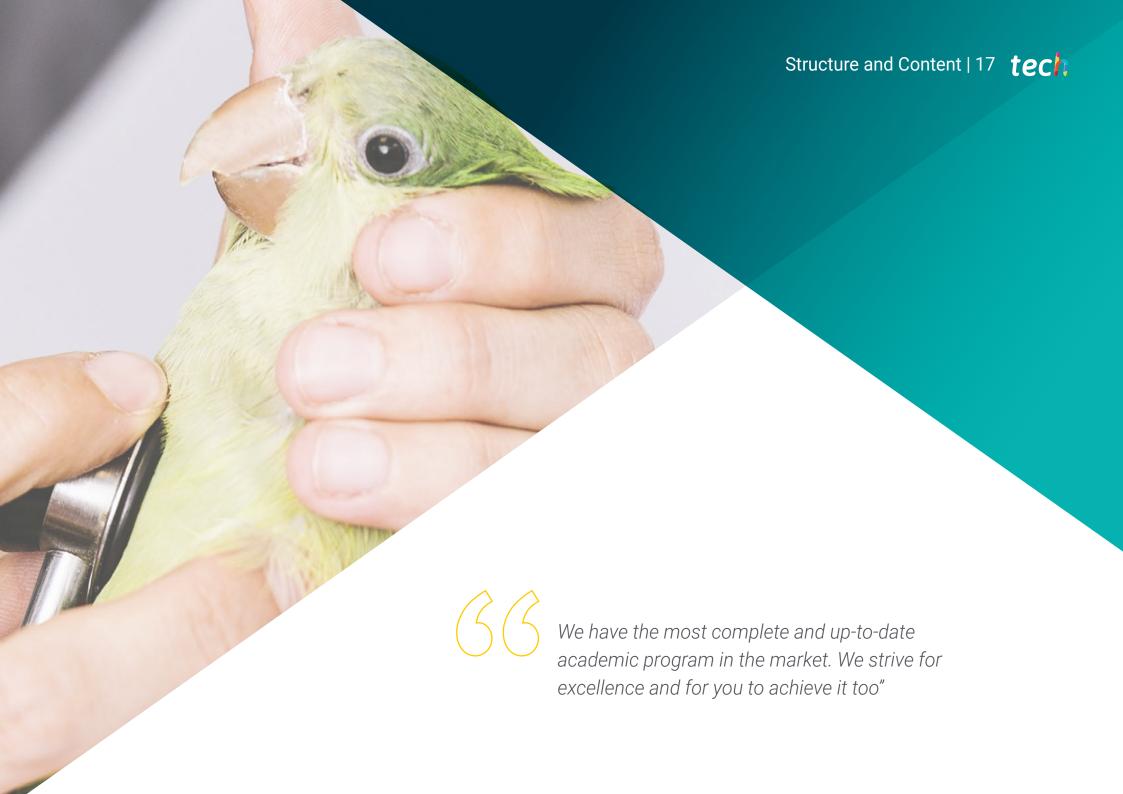
Professors

Dr. García Hernando, Javier

- Responsible for Internal Medicine for Exotic Animals at Privet Veterinary Hospital
- Outpatient veterinarian for exotic animal medicine and surgery, Madrid
- Degree in Veterinary Medicine from the UAX
- Diploma in in Herpetology, UCM







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Module 1. Management-Related Pathologies

- 1.1. Most Common Pathologies
 - 1.1.1. Paresis by Capture: Cause of Mortality in Birds
 - 1.1.1.1. Affected Species and Characteristic Symptomatology
 - 1.1.1.2. Physiopathogenesis
 - 1.1.1.3. Differential Diagnosis
 - 1.1.1.4. Treatment and Prevention
 - 1.1.2. Lead Poisoning
 - 1.1.2.1. Diagnosis
 - 1.1.2.2. Treatment: Primary, Chelating and Supportive
- 1.2. Other Intoxications
 - 1.2.1. Zinc Poisoning
 - 1.2.2. Diagnosis
 - 1.2.2.1. Treatment
 - 1.2.2.2. Primary Treatment
 - 1.2.2.3. Chelating Treatment
 - 1.2.2.4. Supportive Treatment
 - 1.2.3. Ammonium Chloride Poisoning in Falconiformes
 - 1.2.3.1. Clinical Signs
 - 1.2.3.2. Pathological Changes
 - 1.2.3.3. Physiological and Pathological Considerations
 - 1.2.4. Copper Poisoning
 - 1.2.4.1. Diagnosis
 - 1.2.4.2. Treatment
 - 1.2.4.2.1. Chelating Treatment
 - 1.2.4.2.2. Supportive Treatment
- 1.3. Pathologies Derived from Poor Nutrition
 - 1.3.1. Metabolic Osteopathies: Bone Lesions
 - 1.3.2. Most Common Injuries Causes and Types
 - 1.3.3. Symptomatology and Susceptible Species
 - 1.3.4. Diagnoses and Treatments





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- 1.3.5. Long Bone Deformities: Twisting and Flexing
 - 1.3.5.1. Describing Pathology Type
 - 1.3.5.2. Clinical Signs in Birds
 - 1.3.5.3. Treatment and Prevention
- 1.3.6. Bone Alterations in More Distal Bones: Deformation
 - 1.3.6.1. Slipped Tendon
 - 1.3.6.2. Angel Wing
 - 1.3.6.3. Curled Fingers
- 1.3.7. Starvation-Induced Cachexia
 - 1.3.7.1. Definition and Etiology: Symptoms
 - 1.3.7.2. Necropsy Findings
 - 1.3.7.3. Treatment and Prevention
- 1.3.8. Behavioral Osteodystrophy
- 1.4. Oral Cavity Disorders
 - 1.4.1. Beak Pathologies
 - 1.4.2. The Oral Cavity and Oropharynx: The Tongue and Salivary Glands
 - 1.4.2.1. Hypovitaminosis A
 - 1.4.2.2. Trauma
 - 1.4.2.3. Bleeding
 - 1.4.2.4. Neoplasms
 - 1.4.2.5. Halitosis
 - 1.4.3. Infectious Diseases in Birds
 - 1.4.3.1. Mucosal Necrosis
 - 1.4.3.2. Fowl Pox
 - 1.4.3.3. Anatidae Herpesvirus (Duck Viral Enteritis or Duck Plague)
 - 1.4.3.4. Candidiasis (Candida Albicans Infection)
- 1.5. Esophagus and Gullet Pathologies
 - 1.5.1. Esophagitis, Ingluvitis: Esophageal and/or Ingluvial Impaction
 - 1.5.2. Esophagus and/or Crop Infestation by Capillaria Contorta and Other Capillaria spp
 - 1.5.3. Candidiasis and Trichomoniasis
 - 1.5.3.1. Esophageal Ingluvial
 - 1.5.4. Ingluvial Pathologies

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		1.5.4.1. Calculations and Stasis				
	1.5.5.	Crop Pathologies				
		1.5.5.1. "Sour Crop Syndrome"				
		1.5.5.2. Hanging Crop				
		1.5.5.3. Content Regurgitation				
	1.5.6.	6. Common Neoplasms				
1.6.	Proventriculus Pathologies					
	1.6.1.	Proventricular Dilatation Disease in Psittaciformes				
	1.6.2.	Proventricular and Gizzard Impaction				
	1.6.3.	Candidiasis (Candida Albicans Infection)				
	1.6.4.	Other Pathologies				
		1.6.4.1. Atony				
		1.6.4.2. Hypertrophy of Unknown Etiology				
		1.6.4.3. Proventriculitis				
		1.6.4.4. Presence of Foreign Bodies				
1.7.	Gizzard or Ventricle Pathologies: Glandular Stomach					
	1.7.1.	Proventricular Dilatation Disease				
	1.7.2.	Gizzard Ulcerations				
	1.7.3.	Stomach Nematode Infestation				
	1.7.4.	Neoplasms				
	1.7.5.	Other Pathologies				
		1.7.5.1. Muscular Atrophy and Traumatic Ventriculitis				
1.8.	Intestinal Pathologies					
	1.8.1.	Malabsorption Syndrome				
	1.8.2.	Non-Specific Enteropathies				
		1.8.2.1. Diahrrea in Birds				
	1.8.3.	Lower Intestinal Tract Alterations				
		1.8.3.1. Colorectal Impactation				
		1.8.3.2. Rectal Prolapse				
		1.8.3.2.1. Intestinal Overexertion				

	1.8.4.	Most Common Neoplasms				
	1.8.5.	The Cloaca				
		1.8.5.1. Chloacitis: "Gonorrheal Discharge"				
		1.8.5.2. Prolapses				
		1.8.5.3. Most Common Neoplasms				
1.9.	Pathologies of the Liver					
	1.9.1.	Lipidosis				
		1.9.1.1. Fatty Infiltration or Fatty Degeneration				
	1.9.2.	Hemochromatosis				
		1.9.2.1. Iron Storage in Avian Organisms				
	1.9.3.	Visceral Gout				
	1.9.4.	Amilodosis				
	1.9.5.	Most Common Neoplasms				
	1.9.6.	Other Pathologies				
		1.9.6.1. Toxic Hepatitis and Diabetes Mellitus				
1.10.	Endocri	ne Disorders				
	1.10.1.	Thyroid Glands				
	1.10.2.	Parathyroid Glands				
	1.10.3.	Adrenal Glands				
	1.10.4.	Ultimobranchial glands				
		1.10.4.1. Thoracic Localization				
	1.10.5.	Hypophysis: Avian Brains				
	1.10.6.	Pancreas: Endocrine and Exocrine Function				
		1.10.6.1. Pancreatitis				
		1.10.6.2. Acute Pancreatic Necrosis				
		1.10.6.3. Most Common Neoplasms				

Module 2. Avian Patient Diseases

- 2.1. Viral Diseases
 - 2.1.1. Viral Diseases
 - 2.1.2. Newcastle Disease (Paramyxoviridae Family)
 - 2.1.2.1. Etiology
 - 2.1.2.2. Serotype Classification
 - 2.1.2.3. Clinical and Physiopathogenesis Characteristics
 - 2.1.2.4. Diagnostic and Treatment Techniques
 - 2.1.3. Fowl Pox (Poxviridae Family Virus)
 - 2.1.3.1. Serotypes Detected in Birds
 - 2.1.3.2. Clinical Signs in Patients
 - 2.1.3.3. Diagnosis and Treatment
- 2.2. Other Viral Infections of Clinical Interest
 - 2.2.1. Influenza Virus in Birds (Orthomyxoviridae Family)
 - 2.2.1.1. Disease Epizootiology
 - 2.2.1.2. Clinical Signs in Birds
 - 2.2.1.3. Diagnosis
 - 2 2 1 4 Prevention and Control
 - 2.2.2. Herpesvirus Infections
 - 2.2.2.1. Etiology
 - 2222 Marek's Disease
 - 2.2.2.2.1. Polyneuritis Paralysis
 - 2.2.2.3. Duck Plague
 - 2.2.2.3.1. Duck Viral Enteritis
 - 2.2.2.4. Avian Infectious Laryngotracheitis
 - 2.2.2.5. Herpes
 - 2.2.3. Other Viral Diseases
- 2.3. Most Common Bacterial Diseases in Clinics
 - 2.3.1. Pasteurellosis: Cholera
 - 2.3.1.1. History: Etiological Agent and Disease Transmission
 - 2.3.1.2. Susceptible Species and Symptoms
 - 2.3.1.3. Diagnosis
 - 2.3.1.4. Treatment Immunity

2.3.2. Chlamydiosis: Ornithosis-Psittacosis

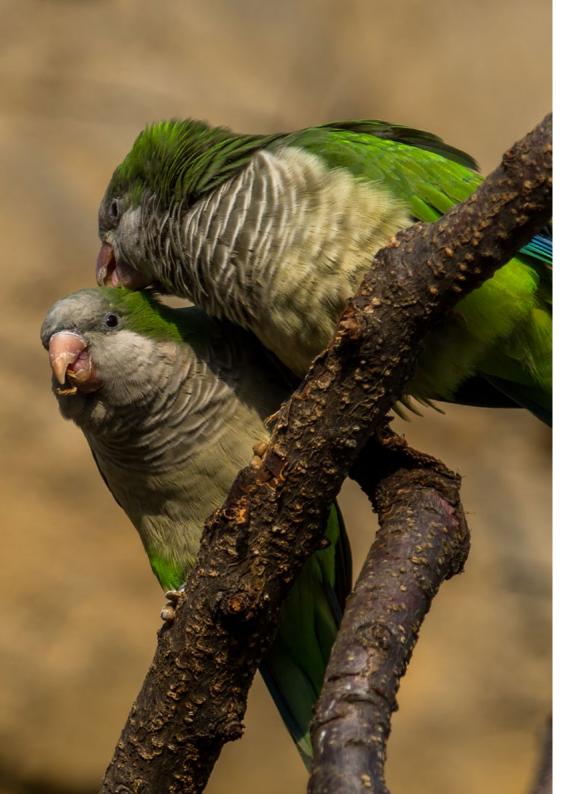
- 2.3.2.1. Causes and Most Susceptible Species
- 2.3.2.2. Effective Diagnosis
- 2.3.2.3. Treatment and Prevention
- 2.3.3. Salmonellosis
 - 2.3.3.1. Definition
 - 2.3.3.2. Etiological Agent
 - 2.3.3.3. Distribution
 - 2.3.3.4. Susceptible Species
 - 2.3.3.5. Transmission
 - 2.3.3.6. Diagnosis
 - 2.3.3.7. Treatment and Prevention

2.4. Less Common Bacterial Diseases in Clinics

- 2.4.1. Avian Tuberculosis: Mycobacterium Spp
 - 2.4.1.1. Causes and Most Susceptible Species
 - 2.4.1.2. Effective Diagnosis
 - 2.4.1.3. Treatment and Prevention
- 2.4.2. Pseudotuberculosis (Yersiniosis)
 - 2.4.2.1. Causes and Most Susceptible Species
 - 2.4.2.2. Effective Diagnosis
 - 2.4.2.3. Treatment and Prevention
- 2.4.3. Escherichia Coli Infections
 - 2.4.3.1. Definition
 - 2.4.3.2. Etiological Agent
 - 2.4.3.3. Distribution
 - 2.4.3.4. Susceptible Species
 - 2.4.3.5. Transmission
 - 2.4.3.6. Diagnosis
 - 2.4.3.7. Treatment and Prevention

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2.5.	Other E	ther Bacterial Diseases in Avian Patients		Ectoparasites	
	2.5.1.	Botulism		2.7.1.	Diptera
		2.5.1.1. History and Spread			2.7.1.1. Flies and Mosquitos
		2.5.1.2. Transmission		2.7.2.	Fleas (Siphonaptera)
		2.5.1.2.1. Clostridium Botulinum Bacilli		2.7.3.	Lice (Phthiraptera-Mallophaga)
		2.5.1.3. Clinical Symptoms and Lesions		2.7.4.	Bedbugs (Hemiptera-Cimicidae)
		2.5.1.4. Diagnosis and Treatment			2.7.4.1. Hematophagous Ectoparasites
	2.5.2.	The Red Disease: Erysipelothrix Rhusiopathiae		2.7.5.	Mites (Acari)
		2.5.2.1. Etiology and Causative Agent Transmission: Wild Birds			2.7.5.1. Most Common Ectoparasites
		2.5.2.2. Effective Detection		2.7.6.	Ticks (Ixodide)
		2.5.2.2.1. Symptoms and Lesions			2.7.6.1. Macroscopic Parasites
		2.5.2.3. Diagnosis and Treatment		2.7.7.	Beetles (Coleoptera)
	2.5.3.	Listeriosis: Listeria Monocytogenes			2.7.7.1. Disease Vectors
		2.5.3.1. History: Etiological Agent and Disease Transmission	2.8.	Perforr	ming Coprological Analysis in Birds
		2.5.3.2. Symptoms Detected in Birds		2.8.1.	Most Prominent Coprological Techniques
		2.5.3.3. Effective Diagnosis and Treatment		2.8.2.	Trematodes
2.6.	Fungal	Diseases			2.8.2.1. Staves
	2.6.1.	2.6.1. Aspergillosis		2.8.3.	Cestodes
		2.6.1.1. Relevant Disease Characteristics			2.8.3.1. Tapeworms
		2.6.1.2. Detected Clinical Signs in Patients		2.8.4.	Nematodes
		2.6.1.3. Effective Diagnostic Techniques			2.8.4.1. Special Nematodes Locations and Pathologies
		2.6.1.4. Treatment, Prevention and Prophylaxis	2.9.	Protoz	oa: Single-Cell Microorganisms
	2.6.2.	Candidiasis		2.9.1.	Coccidiosis in Anseriformes, Galliformes and Passeriformes
		2.6.2.1. Candida Albicans Clinical Signs in Avian patients			2.9.1.1. Eimeria and Isospora Species
		2.6.2.2. Laboratory Diagnostic Techniques			2.9.1.2. Caryospora Species
		2.6.2.3. Treatment and Pathology Control			2.9.1.3. Other Coccidial Species in Birds
	2.6.3.	Dermatofphytosis: Tinea		2.9.2.	Trichomoniasis: Trichomonas Spp
		2.6.3.1. Predisposing Factors and Types of Birds Affected		2.9.3.	Other Protozoa
		2.6.3.2. Most Common Clinical Signs			2.9.3.1. Giardia, Hexamita and Histomonas
		2.6.3.3. Diagnosis and Control			



Structure and Content | 23 tech

2.10. Hemoparasites

2.10.1. Microfilariae

2.10.2. Plasmodium Species

2.10.3. Haemoproteus Species

2.10.4. Leucocytozoon Species

2.10.5. Trypanosomiasis

2.10.6. Hepatozoon Species

2.10.7. Babesia Species

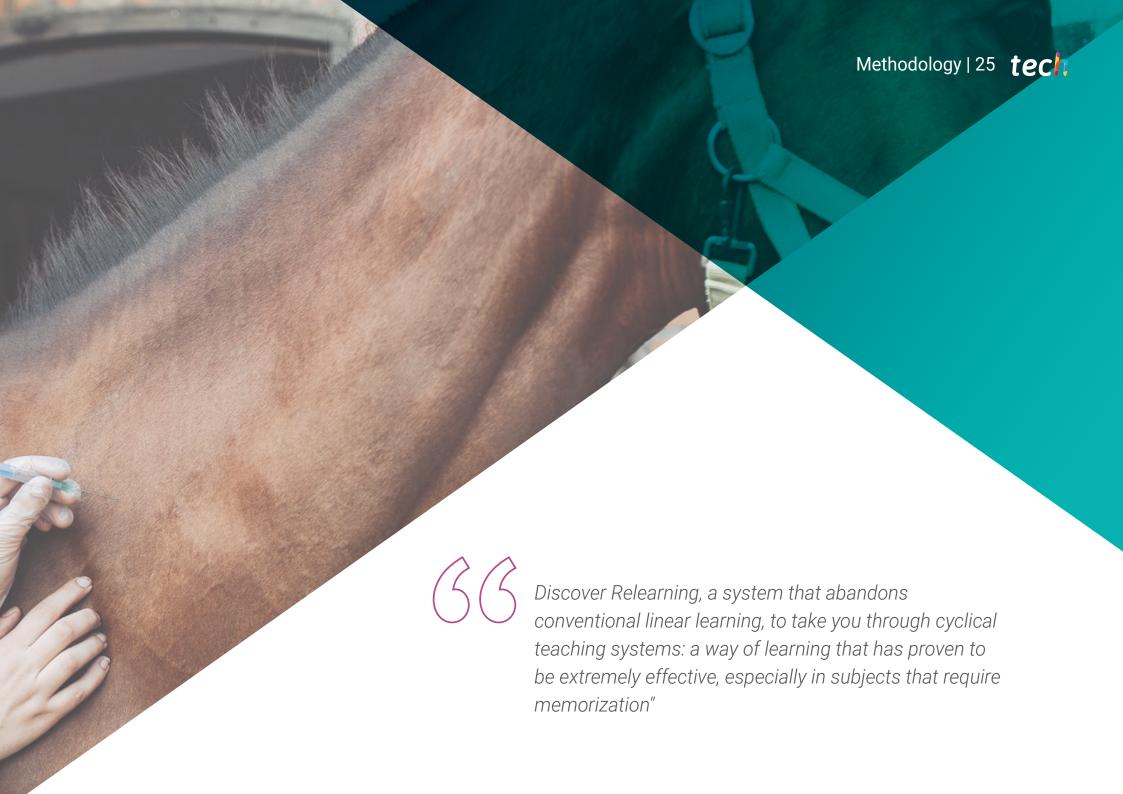
2.10.7.1. Avian Piroplasmas

2.10.8. Other Species



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



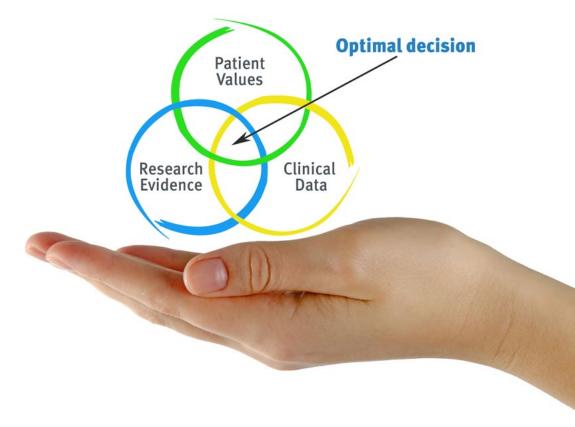


tech 26 | Methodology

At TECH we use the Case Method

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

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



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



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

- 1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- **4.** The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the time dedicated to working on the course.





Relearning Methodology

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

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Veterinarians will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



Methodology | 29 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 adapted in 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

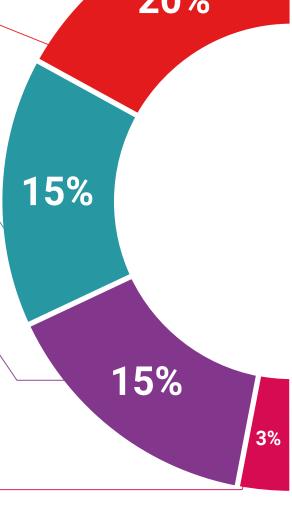
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch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



17%

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.









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This **Postgraduate Certificate in Pathology and Disease in Avian Patients** contains the most complete and up-to-date 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 Pathology and Disease in Avian Patients
Official Number of Hours: 300 h.



technological university

Postgraduate Certificate Pathology and Disease in Avian Patients

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