

# Postgraduate Diploma

## Birds, Wildlife and Fish





## Postgraduate Diploma Birds, Wildlife and Fish

- » Modality: online
- » Duration: 6 months.
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/in/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-birds-wildlife-fish](http://www.techtute.com/in/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-birds-wildlife-fish)

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# 01

# Introduction

Veterinarians need to be highly specialized and qualified to treat their patients with the latest innovations, achieving successful therapies and interventions. In this case, we offer you the opportunity to increase your knowledge in birds, wildlife and fish, a field less known than traditional pets, but constantly growing.



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*Veterinarians specializing in birds, wildlife and fish are increasingly in demand. Don't think twice and improve your skills in this area"*

The Postgraduate Diploma in Birds, Wildlife and Fish is a high quality training program that focuses on the study of the main pathologies, diagnostic techniques and treatments in this type of animals to provide high-level training to veterinarians who want to specialize in this field.

Keeping wild birds or birds from breeding farms is a common fact nowadays that the veterinary professional must face in the daily clinical practice, for this reason it is necessary to understand the anatomical, physiological and ethological differences in conventional pets at home and between avian species in order to approach the patient correctly.

The need to visit a specialist in birds is generally for two specific reasons: when the bird has just been acquired for a routine check-up, deworming, comment on contagious diseases and take appropriate preventive measures; and when the bird has any pathology.

The management of the decompensated avian patient in the clinic needs to be fast and efficient, taking into account the appropriate instrumentation. In addition, its origin must be taken into account, either to consider it as a possible transmitter of zoonotic diseases, or to evaluate its possible reinsertion into the wild if it is a possible wild bird.

On the other hand, this Postgraduate Diploma will also delve into the medicine and surgery of wild animals, focusing on veterinarians working in zoos, aquariums, rescue centers, confiscation centers and rehabilitation centers, among others.

The veterinarian specialized in this type of animals must be qualified to develop all the rescue tasks, clinical care and reception of the animal, diagnostic techniques and interpretation of results, as well as the application of updated medical and surgical treatments that will be developed throughout this module.

Finally, it should be noted that the ornamental fish clinic is largely unknown to the vast majority of clinical veterinarians, yet there is a high awareness of responsibility in their care. As a consequence, the clinical veterinarian today is forced to perform a high level of specialization in these species. Specifically, this Postgraduate Diploma focuses on ornamental fish, fish for animal feed and laboratory fish.

Being an online diploma, 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 Diploma in Birds, Wildlife and Fish contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- ♦ Practical cases presented by experts in birds, wildlife and fish.
- ♦ 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 birds, wildlife and fish.
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning.
- ♦ A special emphasis on innovative methodologies in the field of the diagnosis and treatment of diseases in birds, wildlife and fish.
- ♦ 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.



*Train with us and learn how to diagnose diseases of birds, wildlife and fish"*

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*Do not miss the opportunity to do this Postgraduate Diploma in Birds, Wildlife and Fish with us. It's the perfect opportunity to advance your career"*

*This Postgraduate Diploma is the best investment you can make in selecting a refresher program to update your knowledge in Birds, Wildlife and Fish.*

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

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 specialist must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Birds, Wildlife and Fish.



# 02

# Objectives

The Postgraduate Diploma in Birds, Wildlife and Fish is aimed at facilitating the medical professional's performance with the latest advances and most innovative treatments in the sector.







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*Our main objective is to offer you quality training that allows you to keep up to date with the main advances in the field"*



## General Objectives

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- ♦ Examine the symptoms that a bird has when sick.
- ♦ Explain the principles of the use of radiology in poultry and present the most commonly used images.
- ♦ Explore ultrasound scanning in birds, a forgotten diagnostic technique.
- ♦ Develop the basic principles of endoscopy in birds.
- ♦ Examine the different anatomical and physiological aspects of birds in order to apply them to the most effective treatments.
- ♦ Develop specialized knowledge in the treatment of emergencies in situations of hemorrhage, bone fractures and their treatment in emergency conditions.
- ♦ Establish anesthetic emergency protocols as with any animal that is anesthetized.
- ♦ Reach the protocol of state of shock, which is very difficult to determine in avian patients. Clinical signs may include weakness, mucosal paleness and poor peripheral perfusion.
- ♦ Develop risk prevention for the public, zoonosis and animal escape.
- ♦ Carry out management, nutrition, deworming, vaccination, reproductive management and hygiene plans.
- ♦ Determine the main diseases, required diagnostics and therapeutics in the main animal species.
- ♦ Analyze the principles of anesthesia, main techniques.
- ♦ Avoid the first common mistake: Go directly to seek information from sick or already dead fish.
- ♦ Identify pathologies, understanding that the result of an observation or test can never be considered of absolute diagnostic value without first having assessed and performed other diagnostic tests.
- ♦ Take a much more cautious and prudent approach to pathologies. Pathological problems in fish are often complex and multifactorial.
- ♦ Establish the necessary guidelines applied to each medical treatment.



“ This 100% online Postgraduate Diploma will allow you to combine your studies with your professional work while increasing your knowledge in this”



## Specific Objectives

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### Module 1

- ♦ Develop specialized knowledge about the different bird species.
- ♦ To examine the anatomical differences in order to be able to detect them in the daily consultation.
- ♦ Design appropriate facilities in each situation and for each species, understanding the key factors for each of them.
- ♦ Set a basic list of nutrients for birds.
- ♦ To develop the nutritional requirements for Psittacidae, the most frequent exotic birds in practice.
- ♦ Perform mathematical energy calculations depending on the needs according to the established classifications.
- ♦ Determine the feeding of other bird species that are less frequent but also come to the daily practice.

### Module 2

- ♦ Perform management techniques and preventive medicine in avian patients.
- ♦ Establish the proper sampling and routes of drug administration, understanding their anatomical differences with the rest of the species.
- ♦ Master the techniques of radiology, ultrasound and endoscopy as vital diagnostic imaging tools in avian patients.
- ♦ Detect the most common dermal pathologies, such as acariasis, follicular cysts, itching and cutaneous lipomas.
- ♦ Classify diseases caused by viruses, as well as important traumatologic pathologies.
- ♦ Analyze the most frequent emergencies.
- ♦ Establish the appropriate treatment for each of them and understand the most common treatments.

### Module 3

- ♦ Establish which are the handling tasks of the veterinarian, together with his work team.
- ♦ Develop specialized criteria to decide on the release of a wild species treated for a pathology.
- ♦ Develop preventive medicine programs, such as vaccinations, coprologicals, and vermifugations.
- ♦ Develop specialized knowledge to perform the mandatory clinical examination of any patient who is hospitalized or has just been admitted to a recovery center.
- ♦ Interpret the laboratory tests performed on the animals in order to treat their disease.
- ♦ Establish guidelines for nutrition and nutritional diseases, infectious diseases, reproductive aspects and rescue work of primates, ursids and wild felines.
- ♦ Analyze the most commonly used anesthesia techniques in zoo animals.

#### Module 4

- ♦ Analyze, in each case, the 4 main contexts to carry out an adequate anamnesis:
- ♦ The general informative context: Identifies the type of customer and general typology.
- ♦ The context of the particular system: Technology of the aquatic environment.
- ♦ The context of the population: Assesses the number of fish, ages, species.
- ♦ The individual context: When all the above points have been evaluated, we identify the affected fish, its organs and pathologies.
- ♦ Analyze the clinical management and establish guidelines for the correct collection of laboratory samples.
- ♦ Learn the different pathologies of ornamental fish.
- ♦ Describe the predisposing causes and establish differential diagnoses for each case.
- ♦ Establish a definitive diagnosis and apply a medical or surgical treatment and follow-up of your case.
- ♦ Assess the use of anesthetics and updated protocols.
- ♦ Examine the most commonly used antiparasitic treatments and external disinfectants.
- ♦ Evaluate the degree of learning with the presentation of a clinical case.
- ♦ 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.



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

03

# Course Management

The program's teaching staff includes leading experts in Exotic Animal 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.



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*Our teaching team in the Postgraduate Diploma in Birds, Wildlife and Fish, will help you to achieve success in your profession"*

## Management



### **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

Dr. Cabrera, Jennifer

- ♦ Veterinarian in charge of the Safari wildlife park Madrid





# 04

# Structure and Content

The structure of the content 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, and 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. Relevant Aspects of Birds

- 1.1. Taxonomic Classification of Psittaciformes: The Majority of Birds Brought to the Practice.
  - 1.1.1. Taxonomic Classification.
  - 1.1.2. Worldwide Distribution.
  - 1.1.3. Anatomic Differences.
- 1.2. Taxonomic Classification of Passerine Birds: The Vast Majority of Wild Birds.
  - 1.2.1. Taxonomic Classification.
  - 1.2.2. Worldwide Distribution.
  - 1.2.3. Anatomic Differences.
- 1.3. Taxonomic Classification of Falconiformes: Birds of Prey.
  - 1.3.1. Taxonomic Classification.
  - 1.3.2. Worldwide Distribution.
  - 1.3.3. Anatomic Differences.
- 1.4. Anatomy Recap.
  - 1.4.1. Generalized Anatomy Among Species.
  - 1.4.2. Anatomy of the Skeletal System.
  - 1.4.3. Anatomy of the Organs.
- 1.5. Maintenance: Suitable Facilities for Each Species.
  - 1.5.1. Special Furniture: Types of Cages.
  - 1.5.2. Stress.
  - 1.5.3. Physical exercise
  - 1.5.4. Ultraviolet Light.
  - 1.5.5. Maintenance of Birds in Captivity.
  - 1.5.6. Coloring of the Feathers.
  - 1.5.7. Availability of Water.
  - 1.5.8. Drugs Added to the Water.
  - 1.5.9. Baths and Sprays With Water.
- 1.6. Nutritional Requirements: Nutrition
  - 1.6.1. Feeding Guidelines:
    - 1.6.2. Nutritional Composition of the Food.
      - 1.6.2.1. Carbohydrates.
      - 1.6.2.2. Proteins.
      - 1.6.2.3. Fats.
      - 1.6.2.4. Vitamins.
        - 1.6.2.4.1. Liposoluble Vitamins.
        - 1.6.2.4.2. Hydrosoluble Vitamins.
        - 1.6.2.4.3. Antivitamins.
      - 1.6.2.5. Minerals.
- 1.7. Type of Nutrition in Psittacine Birds.
  - 1.7.1. Seed Mixture: Nature in Captivity.
  - 1.7.2. Feed: Differences Between Granulated and Extruded.
  - 1.7.3. Fruits and Vegetables: Environmental Enrichment.
  - 1.7.4. Germinated Seeds: With High Amounts of Vitamins.
  - 1.7.5. Cooked Legumes: In Raw Form They Generate Digestive Alterations.
  - 1.7.6. Breeding Paste: Desired and Undesired Effects.
  - 1.7.7. Other Products.
  - 1.7.8. Calculating Energy Needs: Basal Metabolic Rate (BMR) and Maintenance Energy Requirements (MER)
- 1.8. Generalized Diet for the Most Frequent Psittacines in the Clinic.
  - 1.8.1. Australian Parakeet (*Melopsittacus undulatus*).
  - 1.8.2. Nymph (*Nymphicus Hollandicus*).
  - 1.8.3. Lovebird (*Agapornis* Spp.).
  - 1.8.4. African Grey Parrot, Yaco (*Psithacus Erithacus*).
- 1.9. Generalized Diet for the Least Frequent Psittacines in the Clinic.
  - 1.9.1. Amazona (*Amazona* Sp).
  - 1.9.2. Macaw (*Ara* Sp).
  - 1.9.3. Cockatoo (*Cacatua* Sp).
  - 1.9.4. Eclectus (*Eclectus Roratus*).
  - 1.9.5. Loris.
  - 1.9.6. Conversion of Psittacine Feeding.



- 1.10. Other Feeding Aspects.
  - 1.10.1. Relevant Aspects.
  - 1.10.2. Feeding in Passerine Birds.
  - 1.10.3. Food in Hospitalized Patients.

## Module 2. Diagnostic Criteria and Treatments in Birds

- 2.1. The Most Important Zoonoses.
  - 2.1.1. Prevention and Protection of the Veterinary Professional.
  - 2.1.2. Risk of Zoonosis from Handling.
  - 2.1.3. Risk of Zoonosis from Ingesting.
- 2.2. Clinical Handling and Preventive Medicine.
  - 2.2.1. Physical Examination: Complete and Orderly.
  - 2.2.2. Containing the Bird.
  - 2.2.3. Sampling and Drug Administration.
    - 2.2.3.1. Intravenous Route.
    - 2.2.3.2. Intraosseous Route.
    - 2.2.3.3. Oral Posology.
    - 2.2.3.4. Intramuscular Route.
    - 2.2.3.5. Subcutaneous Route.
    - 2.2.3.6. Topical Route.
  - 2.2.4. Preventative Medicine.
    - 2.2.4.1. Vaccination.
    - 2.2.4.2. Deworming.
    - 2.2.4.3. Sterilization.
- 2.3. Diagnostic Imaging: Radiology in Birds.
  - 2.3.1. Ultrasound Equipment.
  - 2.3.2. Handling Techniques in Radiography.
  - 2.3.3. Ultrasound Visualization.
- 2.4. Advanced Diagnostic Imaging.
  - 2.4.1. Ultrasound in Birds: The Use of Ultrasound.
  - 2.4.2. Technical Issues.
  - 2.4.3. Preparing and Positioning the Patient.
  - 2.4.4. Endoscopy in Birds: Necessary Instruments.

- 2.5. Pathologies of the Skin.
  - 2.5.1. Acariasis: In Parakeets and Canaries.
  - 2.5.2. Follicular Cysts: Usual Reason for Attending a Practice in Canaries.
  - 2.5.3. Itching: A Major Disorder.
  - 2.5.4. Cutaneous Lipomas: Very Common in Parakeets and Other Species.
- 2.6. Other Important Diseases.
  - 2.6.1. Avian Smallpox: Poxvirus.
  - 2.6.2. Circovirus: Diseases of the Beak and Feathers.
  - 2.6.3. Gout: Visceral or Articular.
  - 2.6.4. Limping: Multifactorial Cause.
  - 2.6.5. Spikes: "Bumblefoot".
- 2.7. Reproductive Diseases.
  - 2.7.1. Introduction.
  - 2.7.2. Egg Retention.
  - 2.7.3. Chronic Egg Laying Nymphs, Parakeets and Lovebirds.
- 2.8. Listing Frequent Pathologies.
  - 2.8.1. Macrorhabdus Ornithogaster: The Megabacteria.
  - 2.8.2. Vomiting and Regurgitating: Nonspecific Type.
  - 2.8.3. PDD: Proventriculus Dilatation Disease.
  - 2.8.4. Hepatic Lipidosis: The Most Common Liver Problem.
  - 2.8.5. Nonspecific Diarrhea: In Passerines and Psittaciformes.
- 2.9. Other Pathologies.
  - 2.9.1. Psittacosis: Potential Zoonosis.
  - 2.9.2. Hypovitaminosis A: Common in Birds Fed Exclusively on Seeds.
  - 2.9.3. Aspergillosis: Fungi of the Aspergillus Genus.
  - 2.9.4. Nonspecific Respiratory Problems: The Major Issue.
  - 2.9.5. Heavy Metal Poisoning.
  - 2.9.6. Hypocalcemia: Very common in Yacos.
- 2.10. Treatments.
  - 2.10.1. Key Aspects to Perform a Surgical Procedure.
  - 2.10.2. Making Bandages.
    - 2.10.2.1. Bandaging Wings.
    - 2.10.2.2. Bandaging Spikes.
  - 2.10.3. Feather Cutting.

## Module 3. Wild Animal Medicine and Surgery

- 3.1. Triage and Emergency Care of Wildlife.
  - 3.1.1. Legislation, Organization and Function of Animal Centers.
  - 3.1.2. The Philosophy and Ethics of Wild Life.
  - 3.1.3. Answering Questions About Treatment and Release to Wildlife.
  - 3.1.4. The Relationship With the Wildlife Rehabilitator.
  - 3.1.5. Emergency Treatment of Wildlife.
  - 3.1.6. Animal Identification Techniques: Indispensable for Population Control.
- 3.2. Selection and Emergency Treatment in Wild Patients.
  - 3.2.1. Trauma.
  - 3.2.2. Oil Spills.
  - 3.2.3. Intoxications.
  - 3.2.4. Infectious Diseases.
  - 3.2.5. Geriatric Animals.
  - 3.2.6. Natural Disasters.
  - 3.2.7. Rehabilitation and Release of Wild Patients.
- 3.3. Real Situations of Wildlife Anesthesia and Immobilization.
  - 3.3.1. Ideal Situation.
  - 3.3.2. Real Situation.
  - 3.3.3. Pre-Anesthetic Considerations.
  - 3.3.4. Public Safety.
- 3.4. The Anesthetic Procedure in Wildlife
  - 3.4.1. The Immobilization Process.
  - 3.4.2. Non-Injectable Anesthetics.
  - 3.4.3. Non-Injectable Anesthetics.
  - 3.4.4. Anesthetic Recovery: Capture Myopathy.
- 3.5. Bacterial Diseases of Wildlife I
  - 3.5.1. Leptospirosis: Leptospira Spp.
  - 3.5.2. Brucellosis: Undulant Fever.
  - 3.5.3. The Bubonic plague: Yersinia Pestis.

- 3.6. Bacterial Diseases of Wildlife II
  - 3.6.1. Psittacosis: Ornithosis and Chlamydiosis.
  - 3.6.2. Salmonellosis: Salmonella Spp.
  - 3.6.3. Tetanus: Clostridium Tetanii.
  - 3.6.4. Tularemia: Rabbit Fever.
- 3.7. Other Important Diseases in Wildlife III
  - 3.7.1. Aspergillosis: Aspergillus Fumigatus.
  - 3.7.2. Histoplasmosis: Histoplasma Capsulatum.
  - 3.7.3. Rabies: Rhabdovirus.
  - 3.7.4. Helminth Diseases: Parasites.
- 3.8. Ursid Medicine.
  - 3.8.1. Taxonomy: Ursidae Family.
  - 3.8.2. Most Common Species of Bears.
  - 3.8.3. Eye Anesthesia: Required Drugs.
  - 3.8.4. Most Common Infectious Diseases.
  - 3.8.5. Biometrics.
  - 3.8.6. Diagnostic Techniques.
  - 3.8.7. Vaccination: Vaccine Types and Protocols.
- 3.9. Wild Feline Medicine.
  - 3.9.1. Taxonomy: Felidae Family.
  - 3.9.2. Most Common Species of Wild Felines.
  - 3.9.3. Anesthesia in Wild Felines: Common Drugs.
  - 3.9.4. Most Common Infectious Diseases.
  - 3.9.5. Other Important Diseases.
  - 3.9.6. Biometrics.
  - 3.9.7. Diagnostic Techniques.
- 3.10. Medicine in Primates.
  - 3.10.1. Taxonomic Classification: Primates of the New World and the Old World.
  - 3.10.2. The Most Common Species of Primates.
  - 3.10.3. Anesthesia in Primates: Common Drugs.
  - 3.10.4. Most Common Infectious Diseases.

## Module 4. Care and Pathologies in Fish

- 4.1. Veterinary Clinical Activity in Fish: Basis for Clinical Diagnosis.
  - 4.1.1. Global Profile of the Clinical Picture.
  - 4.1.2. The Different Aquatic Environments
    - 4.1.2.1. Natural Aquatic Environment and Ornamental Fish Keeping Facilities.
    - 4.1.2.2. Technological Role in Water Maintenance.
  - 4.1.3. Chemical Properties of Water.
    - 4.1.3.1. Chemical Criteria.
    - 4.1.3.2. Biological Criteria.
- 4.2. Anatomic Reminder: Guidelines to Achieve Cross-Species Identification.
  - 4.2.1. Taxonomic Classification.
  - 4.2.2. Most Common Species of Fish
    - 4.2.2.1 Ornamental Fish
    - 4.2.2.2 Fish for Consumption
    - 4.2.2.3 Laboratory Fish
- 4.3. Clinical Handling: Guidelines for Their Appropriate Handling.
  - 4.3.1. Appropriate Anamnesis.
  - 4.3.2. Correct Physical Evaluation.
  - 4.3.3. Basic Handling Techniques.
  - 4.3.4. Specialized Methods in Clinical Techniques.
    - 4.3.4.1. Taking Samples for Complementary Tests.
- 4.4. Clinical Guidelines: The Definitive Diagnosis.
  - 4.4.1. Identifying Clinical Problems.
  - 4.4.2. Postmortem Diagnostic Techniques: The Major Finding.
    - 4.4.2.1. Necropsy Technique.
  - 4.4.3. Interpreting Clinical Findings.
  - 4.4.4. Zoonosis: The Importance of Knowledge for Our Protection.
  - 4.4.5. Biosafety:
    - 4.4.6. Patient Protection.
    - 4.4.7. Food Safety.
    - 4.4.8. Environmental Safety.

- 4.5. Pathologies Diagnosed with Simple Water Analysis Kits: Improper Handling of the Aquatic Environment.
  - 4.5.1. Low Concentration of Oxygen.
  - 4.5.2. Appropriate Control of the Temperature.
    - 4.5.2.1. Thermal Gradients.
  - 4.5.3. Toxicity Due to Ammonia Concentration.
  - 4.5.4. Toxicity Due to Nitrite Concentration.
  - 4.5.5. Control of the pH of the Water.
  - 4.5.6. Appropriate Use and Measuring of the pH of the Water.
  - 4.5.6. Concentration of Solutes in Water.
    - 4.5.6.1. Hard Waters.
    - 4.5.6.2. Inadequate Salinity.
- 4.6. Pathologies Derived from an Improper Maintenance: The Fish as an Individual Patient.
  - 4.6.1. Nutritional Deficiency.
  - 4.6.2. Presence of Inappropriate Toxic Substances: Poisons.
  - 4.6.3. Pathologies Due to the Presence of Algae.
  - 4.6.4. Trauma.
  - 4.6.5. Genetic Alterations.
- 4.7. Pathologies Caused by Microorganisms:
  - 4.7.1. Viral.
  - 4.7.2. Bacterial
  - 4.7.3. Parasitic
- 4.8. Pathologies that Require Complementary Diagnostic Tests.
  - 4.8.1. Incorrect Concentration of Gas.
  - 4.8.2. Trematode Infections.
  - 4.8.3. Nematode Infections.
  - 4.8.4. Cestode Infections.
  - 4.8.5. Ceratomyxa Shasta Infection.
  - 4.8.6. Microsporidiosis.
  - 4.8.7. Coccidiosis.
  - 4.8.8. Processes of Renal Destruction.
- 4.9. Treatment Administration: General Concepts and the Most Used Methods.
  - 4.9.1. Guide of Treatments Used.
  - 4.9.2. Medicine Administration Routes.
  - 4.9.3. Choosing the Right Dosage.
- 4.10. Most Commonly Used Anesthesia Techniques: Administering Anesthesia.
  - 4.10.1. Patient Response to Anesthesia.
  - 4.10.2. Euthanasia.
  - 4.10.3. Produced Toxicity and Residues Generated to the Environment.





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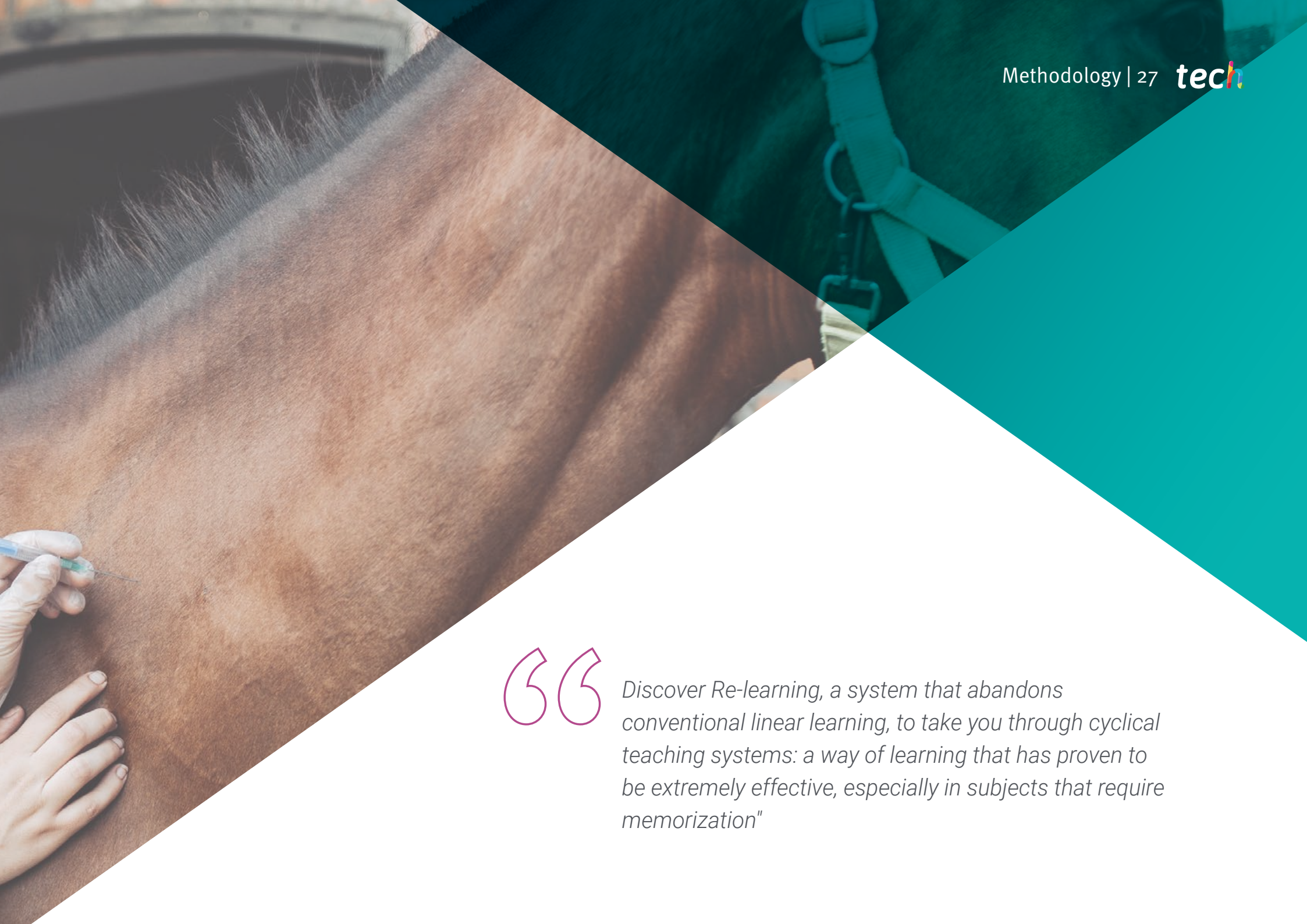
*This training will allow you to advance in your career comfortably”*

# 05 Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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 Re-learning, 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

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-of-the-art software to facilitate immersive learning.*

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

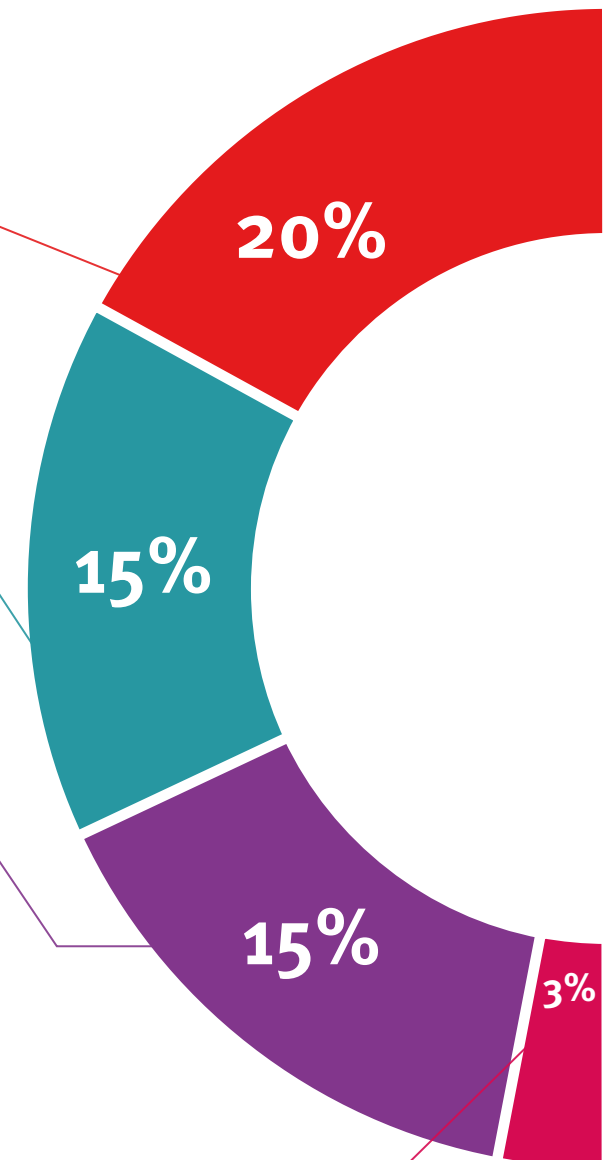
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

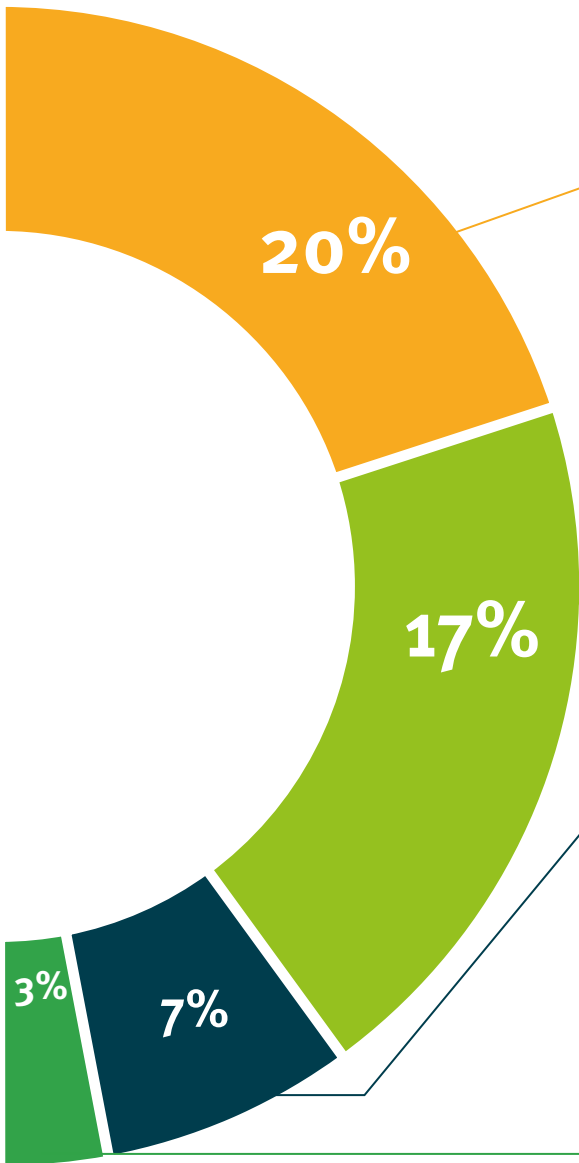


### Additional Reading

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.



06

# Certificate

Through a different and stimulating learning experience, you will be able to acquire the necessary skills to take a big step in your training. An opportunity to progress, with the support and monitoring of a modern and specialized university, which will propel you to another professional level.



“

*Include in your training a Postgraduate Diploma in Birds, Wildlife and Fish: a highly qualified added value for any professional in this area"*

This **Postgraduate Diploma in Birds, Wildlife and Fish** contains the most complete and up-to-date educational program on the market.

After the student has passed the evaluations, they will receive their corresponding certificate issued by TECH - University via tracked delivery.

The certificate issued by TECH - Technological University will reflect the qualification obtained, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Birds, Wildlife and Fish**

ECTS: 24

Official Number of Hours: 600



\*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.

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

**tech** technological  
university

**Postgraduate Diploma**  
**Birds, Wildlife and Fish**

- » Modality: **online**
- » Duration: **6 months.**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

# Postgraduate Diploma

## Birds, Wildlife and Fish

