

# Postgraduate Diploma

Cardiorespiratory, Oncological  
and Neurological Pathologies  
in Small Animals





## Postgraduate Diploma Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals

- » Modality: online
- » Duration: 6 monthst
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-cardiorespiratory-oncological-neurological-pathologies-small-animals](http://www.techtute.com/us/veterinary-medicine/postgraduate-diploma/postgraduate-diploma-cardiorespiratory-oncological-neurological-pathologies-small-animals)

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# 01

# Introduction

This high-level program in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals was created in response to the need of clinical veterinarians to study internal medicine, as well as the approach to protocols and diagnostic techniques, therapeutics and their relationship with other specialties in depth, all of which fundamental in the veterinary specialty of Small Animals.





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*The knowledge acquired through this program provides the student with a comprehensive, practical and updated education in a discipline that is fundamental in the practice of the veterinary profession"*

Quality-based internal medicine allows for work to be combined with other specialties, which is often a high priority, given that a large number of pathologies result in Cardiorespiratory, Oncological and Neurological manifestations, among many others.

The cardiovascular and respiratory systems of small animals often suffer from alterations that, if poorly diagnosed or treated, can be life-threatening. This makes the study and comprehension of the behavior of these systems play a relevant role in small animal veterinary clinics, as does the management of various related pathologies.

Likewise, neurological alterations in companion animals are a very frequent reason for consultation. Due to the great variety of clinical manifestations that can emerge, it is crucial to know how to perform a correct neurological examination in order to verify that it is in fact a neurological problem.

On the other hand, cancer treatments for animals do not always offer possibilities for a cure; however, the veterinarian must be aware of the therapeutic options available for consideration. Neoplastic diseases are increasingly being considered as chronic. That is why early and accurate identification or diagnosis of an animal with cancer is essential, especially as prognosis varies significantly.

This program will explain how to interpret the clinical signs of patients and how to make a systematic, evidence-based diagnosis in which value is given both to diagnostic tests as well as the veterinarian's knowledge of the corresponding interpretation and correlation with clinical signs.

The teaching staff of this Professional Master's Degree is made up of specialists from within different areas of internal medicine with extensive clinical experience. Several of these faculty members have received accreditation as specialists in different fields such as cardiology, ophthalmology, diagnostic imaging, dermatology and oncology, and have collaborated together in veterinary specialty centers. In addition to providing quality clinical work, some of these experts actively participate in various research projects parallel to their teaching and clinical activities.

This **Postgraduate Diploma in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals** contains the most complete and up-to-date educational program on the market. Its most important features include:

- ♦ Case studies presented by experts in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals
- ♦ Graphic, schematic, and practical contents to provide scientific and practical information on those disciplines that are essential for professional development
- ♦ Latest developments in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Special focus on innovative methodologies in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Each topic is accompanied by clinical cases that aim to incorporate the knowledge conveyed and includes activities that will allow students to assess their progress"*

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*Upon completion of the program, students will have obtained knowledge that is essential for professional practice, whether they choose to exercise in a clinical, academic or research context”*

*Combine your studies with professional work while increasing your knowledge in this field with this highly rigorous scientific training.*

*Specialize in a sector with a strong demand for professionals with this high-level program designed by experts in the field.*

It includes, in its Teaching staff, Professionals belonging to the veterinary field, who pour into this training the experience of their work, in addition to recognized Specialists from Reference Societies and Prestigious Universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive learning 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 throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Postgraduate Diploma in Cardiorespiratory, Oncological and Neurologic of Small Animals.



# 02

# Objectives

The Postgraduate Diploma in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals is oriented towards facilitating the performance of the veterinary professional with the latest advances and most innovative treatments in the field.





A close-up photograph of a horse's coat, showing a mix of brown, tan, and white fur. A silver stethoscope is visible in the bottom left corner, partially obscured by the horse's hair. The image is set against a background of teal and white geometric shapes.

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*This Postgraduate Diploma is unique in its category, which will allow students to acquire specialized knowledge and thus be able to offer a high-quality internal medicine service to clients and patients"*



## General Objectives

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- ◆ Understand the physiology of the immune system
- ◆ Identify clinical signs associated with cardiorespiratory diseases as well as decision-making when selecting diagnostic tests
- ◆ Possess adequate knowledge and decision-making skills when dealing with pharmacological therapeutics applied to these organ systems
- ◆ Recognize most frequent neoplasms in pet animals
- ◆ Identify main cell lines at the cytological level
- ◆ Establish correct diagnostic protocol according to anamnesis and physical examination of animal
- ◆ Elaborate most appropriate treatment according to nature of tumor and physical condition of patient
- ◆ Consolidate basic concepts related to neuroanatomy
- ◆ Be able to perform a complete neurological examination and localize a lesion, based on findings
- ◆ Elaborate differential diagnosis according to history, anamnesis and neurological examination
- ◆ Establish diagnostic protocol taking into account findings of neurological examination





## Specific Objectives

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### Module 1. Cardiorespiratory Disorders

- ♦ Analyze and describe pathophysiological mechanisms of different diseases
- ♦ Identify the different diagnostic tests available for these two organ systems
- ♦ Adapt pharmacological therapy to specific condition of cardiorespiratory patient
- ♦ Identify clinical symptomatology of different cardiorespiratory diseases
- ♦ Accurately recognize different pulmonary radiographic patterns
- ♦ Interpret echocardiographic images
- ♦ Propose a methodology for the treatment of different cardiorespiratory pathologies
- ♦ Establish management procedure for patient with heart failure or acute dyspnea

### Module 2. Oncology

- ♦ Recognize main oncological emergencies
- ♦ Identify main differences between mammary tumors in bitches and female cats
- ♦ Become familiar with the most common cytostatics and their management when administering chemotherapy
- ♦ Know how to manage an initial oncology consultation with owners
- ♦ Identify paraneoplastic syndromes and find a means of approach
- ♦ Assess different therapeutic options depending on type of neoplasm
- ♦ Propose diagnostic protocol that allows for adequate tumor staging
- ♦ Establish best therapeutic option(s) once stage of tumor is determined

### Module 3. Neurology

- ♦ Determine whether lesion is intracranial or extracranial, based on neurological examination
- ♦ Examine main differences between central and peripheral SNs
- ♦ Establish a diagnostic protocol for seizure disorders
- ♦ Recognize a status epilepticus and know how to proceed with treatment
- ♦ Identify typical signs of upper and lower motor neuron syndrome
- ♦ Follow correct treatment guidelines for head injuries and establish prognosis
- ♦ Know basics of neuro-ophthalmology and know how to apply clinically



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

03

# Course Management

The program includes in its teaching staff renowned professionals who have joined forces to offer you this high-level training.



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*Our teaching team, experts in Cardiorespiratory, Oncological and Oncologic Pathology in Small Animals, will help you to achieve success in your profession"*

## Management



### Ms. Pérez-Aranda Redondo, María

- Head of the Dermatology Service at Simbiosis Center for Veterinary Specialties Veterinarian at Aljarafe Norte Veterinary Center
- In charge of the Dermatology and Diagnostic Cytology service August 2017 - October 2019
- Veterinary clinic at the veterinary center Canitas in Sevilla Este Responsible for the Dermatology and Cytological Diagnostic Service of all Canitas Veterinary Centers April 2015 - July 2017
- Residency at the Dermatology Department of Veterinary Clinic Hospital - Autonomous University of Barcelona
- Veterinarian at "Centro Veterinario Villarrubia" November 2014 - April 2015
- Official internship at the small animal unit of the Clinical Veterinary Hospital of the University of Cordoba, October 2013 - October 2014
- Honorary collaborator of the Department of Animal Medicine and Dermatological Surgery with Dr. Pedro Ginel Pérez. Student collaborator of the Department of Animal Medicine and Dermatological Surgery with Professor Dr. Pedro Ginel Pérez during the academic periods: 2010-2011, 2011-2012 and 2012-2013
- Student intern at the Veterinary Clinic Hospital of the University of Cordoba during the 2011-2012 and 2012-2013 academic periods



### Mr. Usabiaga Alfaro, Javier

- Bachelor's Degree in Veterinary Medicine from the University Alfonso X El Sabio (UAX); collaborating student at the University Veterinary Hospital UAX; rotated through all services of the center (Internal Medicine, Surgery, Anesthesia, Diagnostic Imaging, Emergency and Hospitalization)
- Master's Degree in Small Animal Medicine and Emergency Medicine from AEVA in 2013
- Master's Degree in Small Animal Medicine and Master's Degree in Small Animal Clinical Ultrasound, from Improve International, where he learned from veterinarians of great impact and world reputation who were also members of the American College and/or European College of Veterinary Studies in 2016 and 2017
- In 2018 he obtained the title and Certificate of General Practitioner in Small Animal Medicine (GPCert SAM), awarded by the International School of Veterinary Postgraduate Studies (ISVPS)
- Received his GPCert in Ultrasound from the ISVPS in 2020
- Obtained the title of the XXXIII National and XXX International Endoscopy Course from the Jesús Usón Minimally Invasive Surgery Center, Cáceres
- Postgraduate course in Diagnostic Imaging, Improve International Postgraduate Diploma in Surgery and Anaesthesia of Small Animals from the Autonomous University of Barcelona (UAB)
- Postgraduate course in Small Animal Surgery offered by the Instituto Veterinario I-Vet

## Professors

### Dr. Recio Monescillo, Julián

- Veterinarian at Simbiosis Specialty Center
- Ophthalmologic ambulatory specialty service
- Collaborations in minimally invasive surgery with Ciruvet ambulatory service
- Bachelor's Degree in Veterinary Medicine from the Alfonso X El Sabio University Madrid, 2014
- Member of the Spanish Society of Veterinary Ophthalmology (SEOVET)
- Master's Degree in Clinical Practice and Small Animal Emergencies of the Spanish Association of Applied Veterinary Medicine. AEVA. 2015
- Master's Degree in Soft Tissue Surgery UAB
- Diploma in Ophthalmology in Veterinary Medicine, Complutense University Madrid
- SEOVET online round table SOS when phaco surgery is non-optimal May 2020
- SEOVET online webseminar Calves, for publication of a scientific article June
- Residencies at Hospital Veterinario Puchol and Centro Oftalmológico Veterinario Goya (Madrid) December 2019 Ophthalmology internship
- El Trébol Veterinary Clinic (Illescas), July 2020 - September 2020

### Dr. Sánchez Gárriza, María

- Founding partner and Director of Simbiosis Center of Veterinary Specialties; founding partner of the Association of Veterinary Specialists (ASESVET & HEALTH); person in charge of Internal Medicine and Oncology Services
- Graduated in Veterinary Medicine from the University of Zaragoza in 2014 and collaborated at the large animal pathology service during the last years of her career
- Postgraduate Degree in Small Animal Medicine from Improve International, where she obtained the title of General Practitioner in Small Animal Medicine (GPcert SAM), awarded by the ISVPS (International School of Veterinary Postgraduate Studies) in 2018
- Master's Degree in Clinical Veterinary Oncology from AEVA, a program designed by that institution and recognized by the European University Miguel de Cervantes (UCME) in 2020
- Postgraduate course in Small Animal Medicine at the Autonomous University of Barcelona (UAB) EN 2020-2021
- Attending and finishing the course of Electrochemotherapy in Veterinary Medicine given by Vetoncology (Veterinary Oncology Service) The only course of its kind in Latin America to be endorsed by both the University of Buenos Aires (UBA) in Argentina and the International Society for Electroporation-Based Technologies and Treatments (ISEBTT). Organized and directed by Drs. Guillermo Marshall, Matías Tellado and Felipe Maglietti
- Residencies with leading professionals in Veterinary Oncology in Spain: several weeks during 2020
- In charge of internal medicine and diagnostic imaging services at several centers in Pamplona during the years 2014-2017



**Dr. Pérez Palacios, Sergio**

- ♦ Co-responsibility for Oncology and Cytology Service at Simbiosis Centro de Especialidades Veterinarias (2021 - Present)
- ♦ Active member of the Emergency, Hospitalization and Intensive Care Department at Simbiosis Veterinary Specialties Center (2021- Present)
- ♦ Bachelor's Degree in Veterinary Medicine from the University of Zaragoza, 2018
- ♦ Master's Degree in Small Animal Clinic I, University of Zaragoza Veterinary Hospital, 2019
- ♦ Master's Degree in Small Animal Clinic II, University of Zaragoza Veterinary Hospital, 2020
- ♦ International Postgraduate Diploma in Oncology in Canine and Feline Patients, 2020
- ♦ Online Postgraduate Diploma in Oncology in Canine and Feline Patients, 2020
- ♦ Online Postgraduate Diploma in Neurology in Canine and Feline Patients, 2020
- ♦ Poster with the title "Complete Remission and Prolonged Survival in a Case of Canine Atrial Hemangiosarcoma" at the SEVC AVEPA 2020

**Dr. Moise, Antoaneta**

- ♦ Clinical Veterinarian in Small Animals (horses and exotic animals)
- ♦ Head of the Animal Health Department at the National Sanitary Directorate of Veterinary and Food Safety Ialomita (Romania)
- ♦ Directorate of Private Farms and Forests Slobozia (Romania)
- ♦ Veterinary Surgeon SC Lactilrom
- ♦ Bachelor's Degree from the University of Valencia
- ♦ Member of the Royal College of Veterinary Surgeons of London

**Dr. Monge Utrilla, Óscar**

- ♦ Cardiology, Diagnostic Imaging and Endoscopy, KITICAN Group, Madrid (currently)
- ♦ Degree in Veterinary Medicine, Universidad Complutense de Madrid 2017
- ♦ GPCert Cardiology IVSPS 2017
- ♦ Degree Course "Specialist Course in Veterinary Hospital Clinic", University of León 2018
- ♦ Professional Master's Degree in "Veterinary Anesthesiology", TECH Technological University. 2021
- ♦ In-house training in cardiology and respiratory medicine at Grupo Veterinario Kitican
- ♦ Veterinary Intern/Resident at the Veterinary Hospital of the University of León Faculty of Veterinary Medicine 2018
- ♦ Veterinarian at the Emergency Department of the Surbatán Veterinary Clinic 2018
- ♦ Veterinarian at the Emergency Department and in charge of the Cardiology Department at El Retiro Veterinary Hospital 2018
- ♦ Veterinarian at the Emergency Department and the Cardiology Department at Majadahonda Veterinary Hospital 2019
- ♦ Cardiology, Ultrasound and Outpatient Endoscopy for Coromoto Diagnostic Imaging, Sinergia 2020

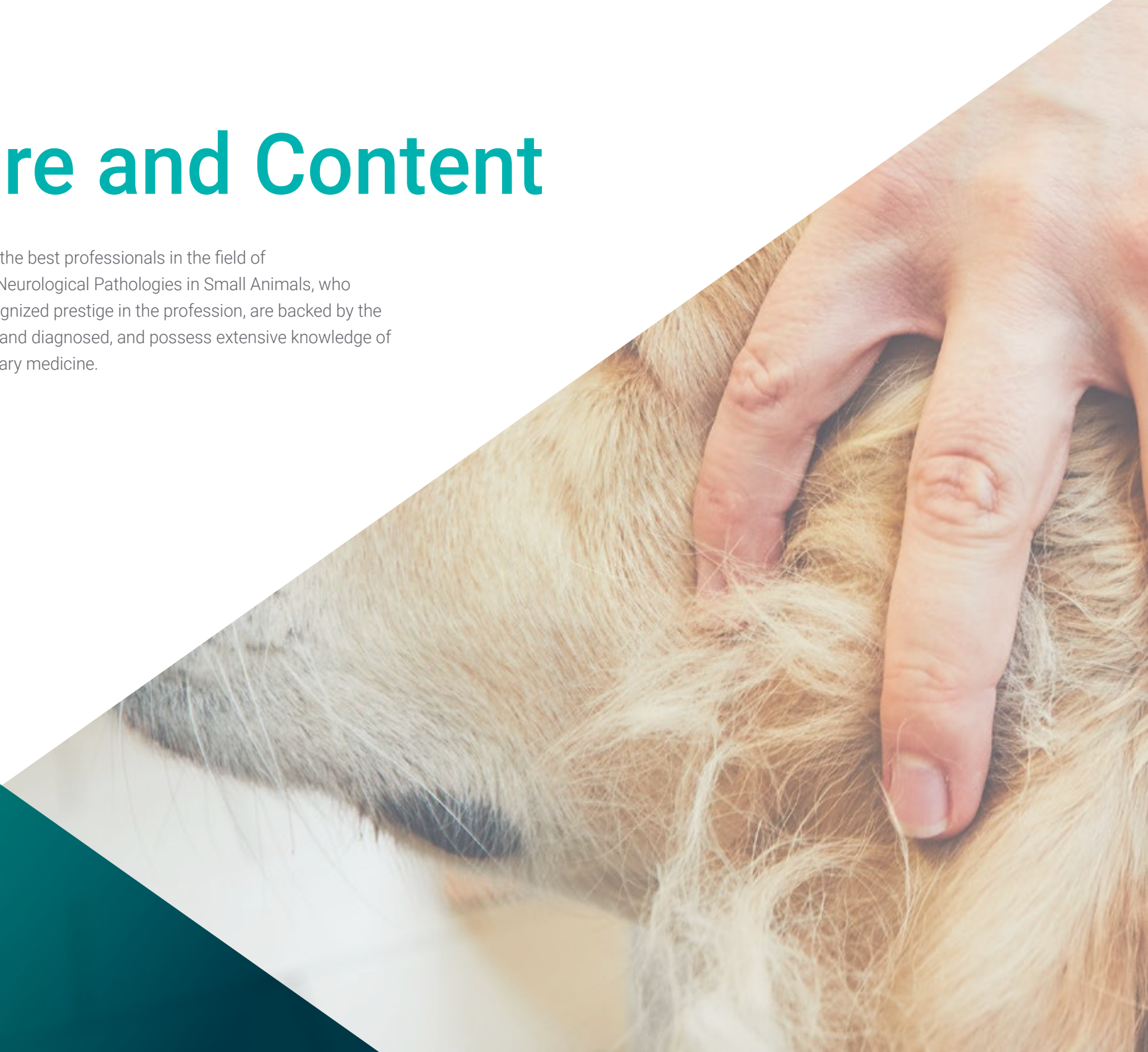
**Dr. Cartagena Albertus, Juan Carlos**

- ♦ Clinical Veterinarian in Small Animal and Exotic Veterinary Clinic
- ♦ Veterinary Expert
- ♦ Graduated in Veterinary Medicine in 1987 from the University of Zaragoza
- ♦ Doctor in Veterinary Oncology from the University of Las Palmas de Gran Canaria.
- ♦ Member of the Royal College of Veterinary Surgeons of London
- ♦ Accredited Specialist in Soft Tissue Surgery by AVEPA
- ♦ Accredited Specialist in Oncology by AVEPA

# 04

# Structure and Content

The syllabus has been designed by the best professionals in the field of Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals, who have extensive experience and recognized prestige in the profession, are backed by the volume of cases reviewed, studied, and diagnosed, and possess extensive knowledge of new technologies applied to veterinary medicine.





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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. Cardiorespiratory Disorders

- 1.1. Cardiorespiratory Physiology
  - 1.1.1. Cardiovascular System Physiology
  - 1.1.2. Physiology of the Respiratory System
  - 1.1.3. Pathophysiology of Heart Failure
- 1.2. Cardiorespiratory System Examination
  - 1.2.1. Anamnesis and Physical Examination
  - 1.2.2. Palpation of Femoral Pulse
  - 1.2.3. Respiratory Pattern
  - 1.2.4. Cardiac Auscultation
  - 1.2.5. Pulmonary auscultation
- 1.3. Thoracic Radiography I
  - 1.3.1. Fundamentals of Thoracic Radiology
  - 1.3.2. Interstitial Pattern
  - 1.3.3. Alveolar Pattern
  - 1.3.4. Bronchial Pattern
  - 1.3.5. Vascular and Mixed Pattern
  - 1.3.6. Cardiac Silhouette Assessment
  - 1.3.7. VHS, VLAS and other Cardiac Measurements in Thoracic Radiography
- 1.4. Electrocardiography
  - 1.4.1. Guidelines for Electrocardiographic Interpretation
  - 1.4.2. Tachyarrhythmias
  - 1.4.3. Bradyarrhythmias and Conduction Disturbances
- 1.5. Echocardiography
  - 1.5.1. Fundamentals of Echocardiography
  - 1.5.2. Echocardiographic Anatomy (B-mode and M-mode)
  - 1.5.3. Pulsed, Continuous, Color, and Tissue Doppler
- 1.6. Diagnostic Tests of the Respiratory System
  - 1.6.1. Rhinoscopy and Pharyngoscopy
  - 1.6.2. Bronchoscopy
  - 1.6.3. Pulmonary CT
- 1.7. Cardiovascular Diseases I
  - 1.7.1. Chronic Degenerative Mitral and Tricuspid Valve Disease
  - 1.7.2. Canine and Feline Dilated Cardiomyopathy





- 1.7.3. Canine and Feline Hypertrophic Cardiomyopathy
- 1.7.4. Restrictive Cardiomyopathy
- 1.7.5. Arrhythmogenic Right Ventricular Cardiomyopathy
- 1.8. Cardiovascular Diseases II
  - 1.8.1. Pulmonary Stenosis
  - 1.8.2. Subaortic Stenosis
  - 1.8.3. Patent Ductus Arteriosus
  - 1.8.4. Valvular Dysplasia
  - 1.8.5. Tetralogy of Fallot
  - 1.8.6. Systemic and Pulmonary Hypertension
  - 1.8.7. Management of Congestive Heart Failure
- 1.9. Respiratory Diseases I
  - 1.9.1. Rhinitis and Brachiocephalic Syndrome
  - 1.9.2. Tracheal Stenosis
  - 1.9.3. Chronic Bronchitis and Feline Asthma
  - 1.9.4. Pneumonias
  - 1.9.5. Pulmonary Fibrosis
  - 1.9.6. Pulmonary Neoplasms
- 1.10. Respiratory Diseases II
  - 1.10.1. Diseases of the Pleura and Pleural Space
  - 1.10.2. Dirofilaria and Pulmonary Thromboembolism
  - 1.10.3. Management Dyspneic Patients

## Module 2. Oncology

- 2.1. Approach to Patients with Cancer
  - 2.1.1. Oncology Patient and Owner
  - 2.1.2. Paraneoplastic Syndromes
  - 2.1.3. Types of Treatment Response
- 2.2. Diagnosis and Staging of Cancer Patients
  - 2.2.1. Diagnostic Methods
  - 2.2.2. Clinical Staging
- 2.3. Diagnostic Cytology and Biopsy Collection
  - 2.3.1. Obtaining and Handling Cytological Sample
  - 2.3.2. Cytological Interpretation

- 2.3.3. Cytology of Inflammatory and Hyperplastic Lesions
- 2.3.4. Cytology of Neoplasms and Criteria for Malignancy
- 2.3.5. Tumors of Epithelial Origin
- 2.3.6. Tumors of Conjunctival Origin
- 2.3.7. Round Cell Tumours
- 2.3.8. Biopsy Techniques
- 2.4. Principles of Anti-Tumor Therapy
  - 2.4.1. Surgery
  - 2.4.2. Indications and Uses of Chemotherapy
  - 2.4.3. Main Chemotherapeutic Drugs
  - 2.4.4. Dosage, Administration Rates and Development of Resistance
  - 2.4.5. Toxicity for the Patient
  - 2.4.6. Management of Cytotoxic Agents
  - 2.4.7. Metronomic Chemotherapy
  - 2.4.8. Electrochemotherapy
  - 2.4.9. Other Treatment Options I: Radiotherapy
  - 2.4.10. Other Treatment Options II: Immunotherapy
- 2.5. Soft Tissue Sarcomas: Hemangiosarcoma, SAPI
  - 2.5.1. Major Clinical and Pathological Aspects of Hemangiosarcoma
  - 2.5.2. Diagnosis and Treatment Guidelines for Hemangiosarcoma
  - 2.5.3. Feline Hemangiosarcoma
  - 2.5.4. Major Clinical and Pathological Aspects of SAPI
  - 2.5.5. Diagnosis and Treatment Guidelines for SAPI
- 2.6. Skin Neoplasms: Mastocytoma
  - 2.6.1. Major Clinical and Pathological Aspects of Mastocytoma
  - 2.6.2. Histological Grades
  - 2.6.3. Keys to Mastocytoma Diagnosis and Treatment
  - 2.6.4. Feline Mastocytoma
- 2.7. Breast Neoplasia
  - 2.7.1. Major Clinical and Pathological Aspects in Bitches
  - 2.7.2. Major Clinical and Pathological Aspects in Female Cats
  - 2.7.3. Diagnostic Protocol and Clinical Staging in Bitches
  - 2.7.4. Diagnostic Protocol and Clinical Staging in Female Cats

- 2.7.5. Treatment Guidelines for Bitches
- 2.7.6. Treatment Guidelines for Female Cats
- 2.7.7. Inflammatory Carcinoma
- 2.8. Hemolymphoid Neoplasms: Leukemia and Lymphoma
  - 2.8.1. Major Clinical and Pathological Aspects of Canine Lymphoma
  - 2.8.2. Diagnosis and Treatment Guidelines for Canine Lymphoma
  - 2.8.3. Major Clinical and Pathological Aspects of Feline Lymphoma
  - 2.8.4. Diagnosis and Treatment Guidelines for Feline Lymphoma
  - 2.8.5. Acute Leukemia: Diagnosis and Treatment
  - 2.8.6. Chronic Leukemia: Diagnosis and Treatment
- 2.9. Other Major Neoplasms in Dogs and Cats
  - 2.9.1. Osteosarcoma
  - 2.9.2. Squamous Cell Carcinoma (SCC)
  - 2.9.3. Melanoma
  - 2.9.4. Gastrointestinal Tumors
- 2.10. Oncologic Emergencies
  - 2.10.1. Hypercalcemia
  - 2.10.2. Hypoglycemia
  - 2.10.3. Febrile Neutropenia
  - 2.10.4. Tumor Lysis Syndrome
  - 2.10.5. Hyperviscosity Syndrome

## Module 3. Neurology

- 3.1. Neuroanatomy
  - 3.1.1. CNS
  - 3.1.2. SNP
- 3.2. Neurological Examination I
  - 3.2.1. State of Mind
  - 3.2.2. Posture and Gait
  - 3.2.3. Cranial Nerves
  - 3.2.4. Postural Reactions
  - 3.2.5. Spinal Reflexes

- 3.3. Neurological Examination II
  - 3.3.1. Lower and Upper Motor Neurons
  - 3.3.2. Paresis and Ataxia
  - 3.3.3. Reflex vs. Reaction
  - 3.3.4. Neuro-Ophthalmology I
  - 3.3.5. Neuro-Ophthalmology II
- 3.4. Localization of Lesion (Neurolocalization)
  - 3.4.1. Where is the Lesion?
  - 3.4.2. Intracranial vs. Extracranial
  - 3.4.3. Intracranial: Anterior Encephalon, Brainstem, Vestibular System and Cerebellum
  - 3.4.4. Extracranial: Spinal Cord, PNS and Muscle
- 3.5. Differential Diagnosis (Vitamin D)
  - 3.5.1. Vascular
  - 3.5.2. Inflammatory/Infectious
  - 3.5.3. Traumatologic/Toxic
  - 3.5.4. Congenital Abnormalities
  - 3.5.5. Metabolic
  - 3.5.6. Idiopathic
  - 3.5.7. Neoplastic
  - 3.5.8. Degenerative
- 3.6. Diagnostic Techniques
  - 3.6.1. Blood and Urine Tests
  - 3.6.2. Serum Titrations
  - 3.6.3. LCR
  - 3.6.4. Imaging Tests: Rx, Tc and Rm
  - 3.6.5. Electrodiagnostic Testing
- 3.7. Epilepsy and Seizures
  - 3.7.1. Introduction and Pathophysiology
  - 3.7.2. Clinical Signs and Classification
  - 3.7.3. Diagnostic Protocol
  - 3.7.4. Crisis Treatment
  - 3.7.5. Status Epilepticus
- 3.8. Cranioencephalic Trauma
  - 3.8.1. Pathophysiology
  - 3.8.2. Clinical symptoms
  - 3.8.3. Diagnostic Protocol
  - 3.8.4. Treatment
  - 3.8.5. Prognosis
- 3.9. Neuromuscular Debility
  - 3.9.1. Botulism
  - 3.9.2. Myasthenia Gravis
  - 3.9.3. Polyradiculoneuritis
- 3.10. Vestibular Syndrome
  - 3.10.1. Anatomy
  - 3.10.2. Clinical Signs (Central vs. Peripheral)
  - 3.10.3. Vestibular System Pathologies
  - 3.10.4. Diagnosis
  - 3.10.5. Treatment



*This program allows you to combine your professional and work activities so that you can advance your career in a comfortable and practical way"*

# 05 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.







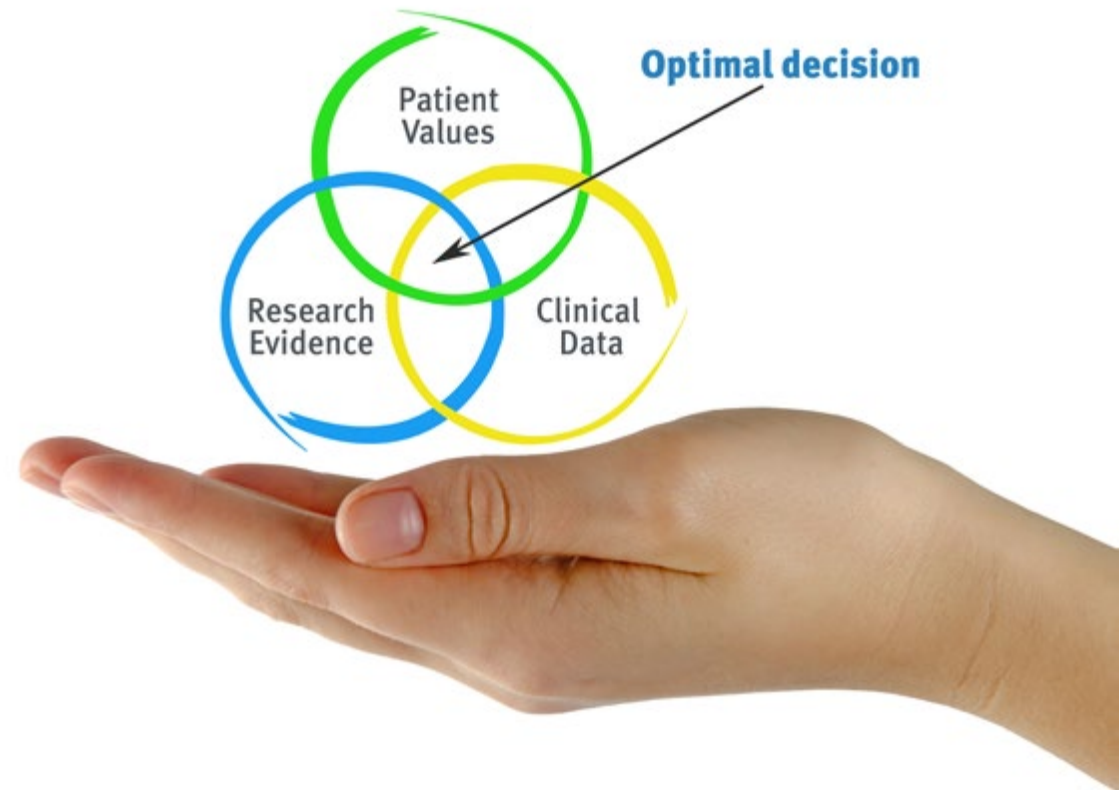
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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.

“

*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.

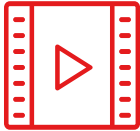
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

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

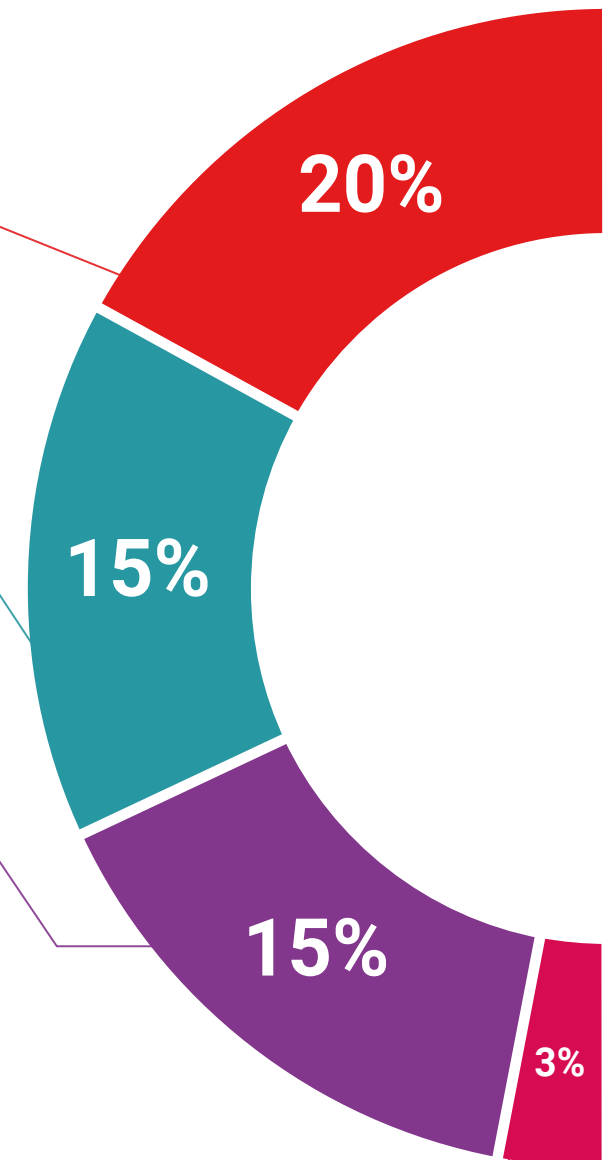
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

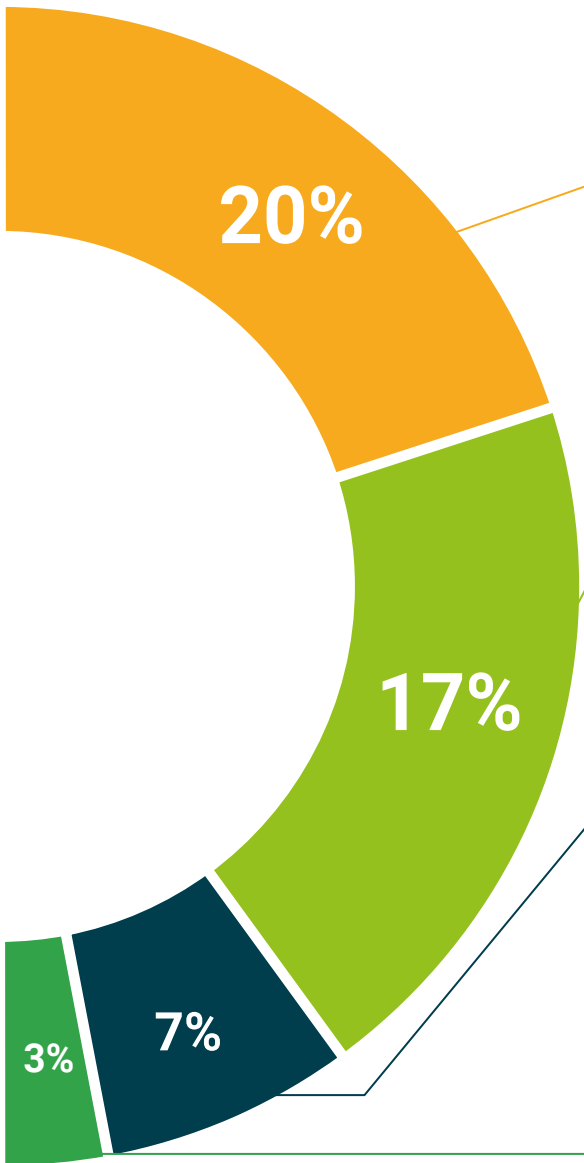
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 Diploma in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.





“

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

This program will allow you to obtain your **Postgraduate Diploma in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

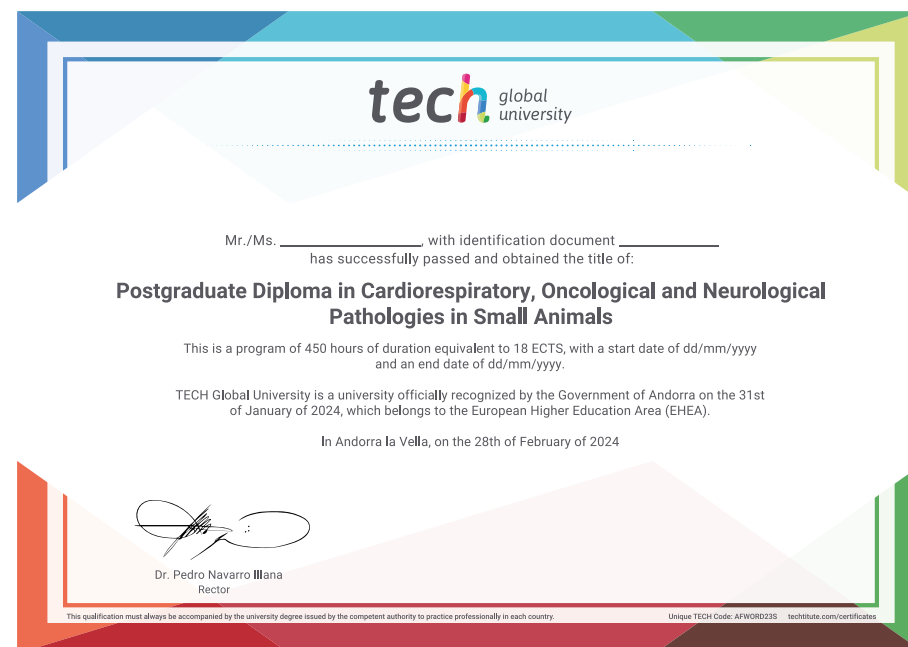
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Cardiorespiratory, Oncological and Neurological Pathologies in Small Animals**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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

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education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online training  
development languages  
classroom



**Postgraduate Diploma**  
Cardiorespiratory, Oncological  
and Neurological Pathologies  
in Small Animals

- » Modality: online
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- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

Cardiorespiratory, Oncological  
and Neurological Pathologies  
in Small Animals

