Professional Master's Degree
Small Animal Neurology

tech technological university

Professional Master's Degree
Small Animal Neurology

» Modality: **Online**
» Duration: **12 months.**
» Certificate: **TECH Technological University**
» Dedication: **8h/week**
» Schedule: **at your own pace**
» Exams: **online**

Website: **www.techtitute.com/us/veterinary-medicine/professional-master-degree/master-small-animal-neurology**

Index

01
Introduction

Pet owners are increasingly demanding more qualified and specialized professionals to distribute correct advice regarding the different pathologies that may occur in the veterinary clinic. In today's field of Small Animal Neurology, we can develop an intervention supported by scientific and technological advances that have led to remarkable progression in the care capacity in this complex area. In this exceptional program, we provide the student with the most up-to-date and relevant knowledge, in an intensive study led by specialists in Neurology and Veterinary Imaging, which will allow you to acquire the skills of a leading expert.

Acquire the skills required to perform an accurate neurological examination of your patients, learning how to develop the differential diagnosis and to prescribe the most appropriate tests in each case"

In the last decade, Small Animal Neurology has experienced a great boom among veterinary professionals interested in this specialization.

Much of this interest is due to the availability of new technologies for physicians, such as CT and MRI, machinery that is much more within the reach of veterinary centers and hospitals, which allows for more accurate diagnoses and facilitates a more in-depth study of the different pathologies.

This Professional Master's Degree in Small Animal Neurology is structured in modules to facilitate the detailed study of all aspects of clinical neurology: the anatomy and physiology of the nervous system, the localization of the injury, the different common pathologies in each anatomical region, diagnostic tests and their interpretation, as well as the treatment and prognosis of each disease.

This Professional Master's Degree places special emphasis on extrapolating theoretical concepts to the practice of the practitioner, allowing the veterinarian to face each clinical case with the personal knowledge and experience of the professors, always from a scientific point of view: of Evidence-Based Medicine.

It is designed for veterinarians who want to specialize in Small Animal Neurology, and professionals who are dedicated to this discipline and want to deepen and expand their knowledge.

This **Professional Master's Degree in Small Animal Neurology** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems.
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with professors and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- Banks of complementary documentation permanently available, even after the program

A study that includes knowledge of the anatomy and physiology of the nervous system, brain or spinal cord"

"
With the real experience of specialists in Small Animal Neurology who pour their authentic and practical vision of veterinary intervention in the field into this program"

The topics and clinical cases proposed, as well as their resolution, are based on both the teachers' practical experience and on the latest advances in research and development that contribute to this field of work.

All knowledge is presented through high-quality multimedia content, analysis of clinical cases prepared by the professors, master classes and video techniques that allow knowledge and experience exchange, maintaining and updating the educational level of its members, creating protocols for action and disseminating the most important developments in emergencies in small animal medicine.

TECH's teaching staff is made up of professionals from different fields related to this specialty. This way, we ensure that we deliver the educational refresher course we are aiming for. A multidisciplinary team of qualified and experienced professionals in different fields, who will develop the theoretical knowledge efficiently, but, above all, will provide the program with the practical knowledge derived from their own experience: one of the differential qualities of this Professional Master's Degree

With a methodological design based on teaching techniques proven for their effectiveness, this high-quality Professional Master's Degree was developpe to allow you to learn in a dynamic and effective way.

With the support of the most efficient audiovisual systems, the purpose of this program is for students to not only acquire specialized knowledge, but, upon completion, to have the working skills they will need in this field.
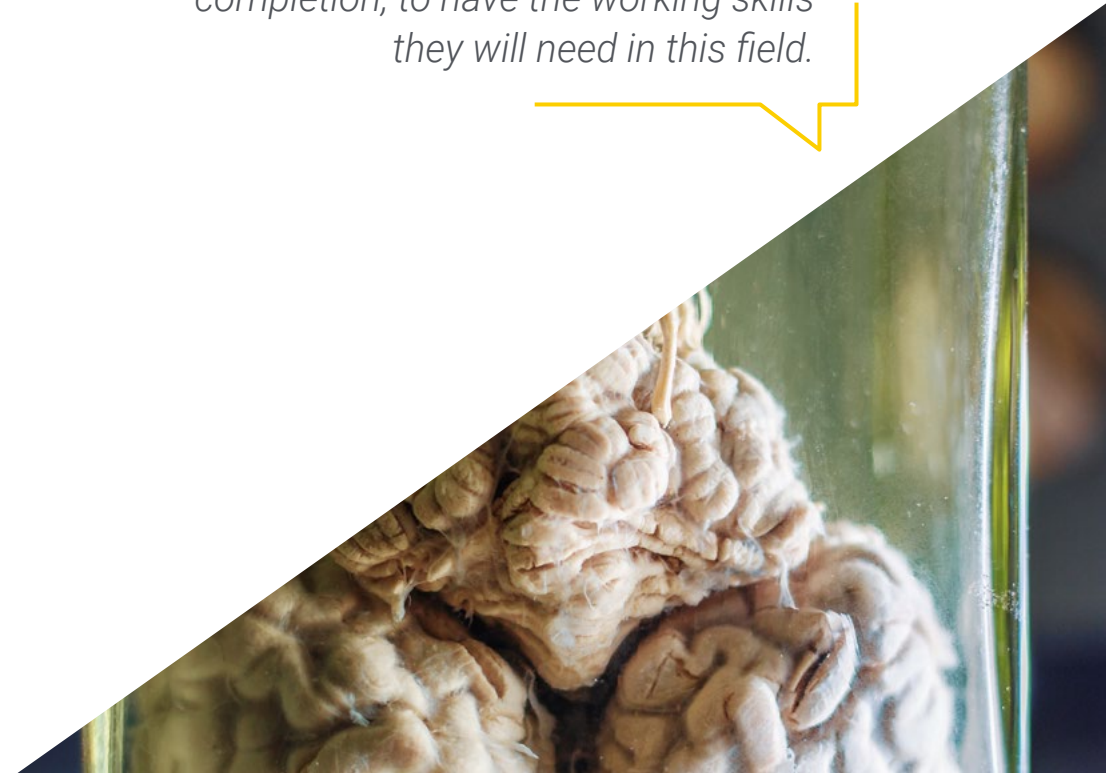
02
Objectives

This Professional Master's Degree compiles the most up-to-date knowledge in terms of scientific research and technological development in diagnostic techniques and intervention in neurological pathologies in small animals. The objective is for students to generate specialized knowledge, creating a well-structured basis to identify the clinical signs associated with each neurological location and to be able to establish a list of differential diagnoses, acting correctly to achieve the best possible prognosis in patients.

" *The ultimate goal is to boost your capacity for real intervention by incorporating the most up-to-date knowledge in this field, learning in a realistic and effective way in order to grow as a professional"*

General Objectives

- Examine the embryonic development of the nervous system in its different phases and the mechanisms involved in its training

- Determine, in an exhaustive manner, the different regions of the central nervous system, peripheral nervous system and musculoskeletal system

- Analyze the physiology and mechanism of the functioning of the central nervous system

- Identify the different vascular structures of clinical importance to identify possible vascular pathologies and learn about these structures in surgical procedures

- Perform a correct anamnesis and data collection

- Determine the steps of the neurological examination and its correct performance

- Identify the characteristic clinical signs depending on the site of the lesion

- Define the list of problems depending on the patient's course, clinical history and review

- Identify the most common laboratory tests

- Compile the indications, performance and interpretation of advanced imaging tests

- Develop the principles of electrophysiology, the different tests and their interpretation

- Determine the correct performance of muscle and nerve biopsy

- Structure the different anesthetic protocols in neurosurgery

- Identify the different pathologies that require surgical intervention, as well as their technique

- Propose the appropriate analgesic management for each case

- Define the fundamentals of rehabilitation, its indications and the most appropriate techniques for each case

- Identify common clinical signs affecting the brain

- Analyze inflammatory and vascular diseases, various toxic, traumatic and metabolic diseases

- Compile and classify the most common neoplasms of the brain
- Reinforce concepts of localization and characteristic clinical signs of myelopathies
- Define and present the different etiologies in myelopathies
- Manage and treat the different types of herniated discs
- Analyze the different diagnostic tests required and their interpretation for the different causes of spinal cord pathologies
- Define and classify the different neuromuscular diseases
- Develop the different diagnostic tests and their interpretation
- Develop the different treatments for neuromuscular diseases
- Present the characteristic clinical signs for its correct neurolocalization
- Develop the different alterations of the cranial pairs
- Present vestibular syndrome, types and its management
- Define the different entities of movement disorders
- Deepen and develop the knowledge of neuro-ophthalmology
- Examine the most important syndromes in Small Animal Neurology
- Analyze the different urination disorders
- Determine alternative therapies for neurological processes
- Further study oncological treatments and its application
- Analyze the management of anesthesia with a neurological emergency
- Develop and evaluate patients with cranioencephalic and spinal cord trauma
- Identify the necessary actions to be taken in clusters or status epilepticus
- Examine the most common toxicological and metabolic emergencies

Specific Objectives

Module I. Nervous System Embryology, Anatomy and Physiology
- Identify the different stages of embryonic development of the nervous system
- Present, in a clear and concise manner, the anatomy and physiology of the brain and the anatomy and physiology of the spinal cord
- Develop the mechanisms of nerve impulse transmission
- Determine the different bones and joints that protect the brain and spinal cord
- Examine the characteristics of the arterial and venous blood supply to the brain and spinal cord

Module 2. Neurological Examination and Neurolocalization
- Structure the steps to follow for a correct neurological evaluation
- Analyze the different differential diagnoses depending on each case
- Identify the characteristic clinical signs of a lesion in the forebrain, brainstem and cerebellum
- Identify the clinical signs characteristic of a lesion in the different segments of the spinal cord and of a peripheral nervous system involvement

Module 3. Diagnostic Tests
- Interpret the various parameters in blood and CSF tests that are of clinical significance
- Structuring the correct performance and interpretation of myelography, CT and MRI scans
- Justify the different electrophysiological tests and their interpretation
- Present the performance of muscle and nerve biopsy and its interpretation
- Identify the different genetic tests in dogs and cats

Module 4. Anesthesia, Analgesia. Neurosurgery
- Define types and protocols of the different procedures in neurosurgery
- Determine the types and indications for analgesia in neurological patients
- Examine the basic principles of neurosurgery
- Address the techniques necessary to perform surgery for herniated discs, vertebral fractures and dislocations
- Present and discuss the concepts and techniques of intracranial surgery and oncologic surgery
- Structure correct physiotherapy plans for neurological patients

Module 5. Brain Pathologies
- Define, develop and classify vascular accidents affecting the brain
- Examine the different inflammatory and infectious pathologies affecting the brain
- Analyze and classify neoplasms of the brain
- Determine the different metabolic and degenerative diseases of the brain
- Present congenital anomalies and identify them
- Structure and define toxic diseases

Module 6. Spinal Cord Pathologies

- Determine the management of different therapeutics for various spinal cord pathologies
- Develop vascular, inflammatory and infectious diseases of the spinal cord
- Outline the management of spinal trauma
- Analyze metabolic and degenerative diseases of the spinal cord
- Identify the different types of herniated discs and their management
- Examine congenital anomalies affecting the spinal cord, pathogenesis and treatment of caudal cervical spondylomyelopathy and atlantoaxial dislocation

Module 7. Neuromuscular Diseases

- Specify the basic principles and classification of neuromuscular diseases
- Define the mechanisms of nerve impulse generation and transmission
- Describe the types, diagnosis and treatment of the different neuropathies, polyneuropathies and myopathies
- Examine the types of neuromuscular junction diseases
- Analyze myastemia gravis as an important clinical entity in the neurology practice
- Establish the different prognoses of neuromuscular diseases

Module 8. Cranial Nerve Disorders, Vestibular Syndrome and Canine and Feline Epilepsy. Involuntary Movement Disorders

- Identify cranial nerve disorders
- Develop the causes, diagnosis and treatment of vestibular syndrome and facial paralysis
- Analyze neuro-ophthalmology as a fundamental basis of neurology
- Define and identify the causes of laryngeal and megaesophageal paralysis
- Developing canine and feline epilepsy
- Examine the different types of movement disorders

Module 9. Important Syndromes and Specific Treatments

- Examine cognitive dysfunction syndrome, Horner's syndrome and cauda equina syndrome
- Analyze the correct application of antibiotics in neurology
- Present the different micturition disorders
- Establish the use of chemotherapy in oncology of neurological processes and the use of radiotherapy in oncology

Module 10. Neurological Emergencies

- Specify the types of anesthesia and protocols most commonly used in the anesthesia of patients with neurological emergencies
- Determine the management and prognosis of traumatic brain injury and spinal cord injury
- Examine the most common metabolic emergencies
- Analyze the diagnostic picture and management of weakness and collapse, botulism and tetanus, as well as their diagnosis

03
Skills

This Professional Master's Degree in Small Animal Neurology has been created as a high quality tool for veterinary professionals. The main objective of this Professional Master's Degree is to prepare high quality professionals to be able to cope with neurological cases presented in daily clinical practice, with the appropriate and expert use of the latest technological, surgical and treatment resources available.

You will finish your learning process with the mastery of the techniques and protocols of the most innovative and effective technologies in the diagnosis and approach of neurological pathologies in small animals"

General Skills

- Perform a complete neurological examination of small animals
- Locate the possible neurological injury
- Perform differential diagnosis
- Schedule relevant tests
- Establish the corresponding treatments for each pathology or case
- Establish a forecast
- Work in centers specializing in Small Animal Neurology
- Develop a methodical approach according to evidence-based medicine
- Optimize the performance of intervention in Small Animal Neurology

A unique specialization program that will enable you to acquire superior knowledge to develop in this field"
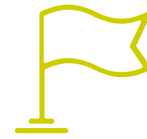
Specific Skills

- Recognize the embryology, anatomy, physiology of the nervous system in small animals
- Know how to perform a complete neurological examination and locate the existing injury in patients
- Prescribe appropriate diagnostic tests
- Master the different types of anesthesia applicable in each case
- Work with analgesia according to the latest international recommendations
- Intervene in neurosurgery
- Know pathologies of the brain
- Perform diagnosis of spinal cord pathologies
- Diagnosis of neuromuscular diseases
- Prescribe the appropriate treatment for each case
- Identify cranial nerve disorders
- Address canine and feline vestibular syndrome
- Treat canine and feline epilepsy
- Treat movement disorders
- Deal quickly and efficiently with neurological emergencies in small animals

04
Course Management

Within the concept of total quality of our program, TECH is proud to provide students with a teaching staff of the highest level, chosen for their proven experience. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

This exceptional Professional Master's Degree in Small Animal Neurology has been configured as the most complete compilation of knowledge, techniques and current technologies developed in this field, to offer professionals a boost towards maximum competence"

Director Invitado Internacional

Dr. Steven de Decker's interest in the field of Veterinary Neurology has led him to be one of the most important figures in this area worldwide. He has participated in several international congresses, including the Singapore Vet Show, the largest veterinary conference in the Asian continent.

Such is his relevance that he has become president of the British Society of Veterinary Neurology. He is also a senior lecturer and head of the Neurology and Neurosurgery service at the Royal Veterinary College, considered one of the best veterinary institutions in the world.

His main area of research is spinal disorders and neurosurgery, having delved into the diagnosis and treatment of cervical disc-associated spondylomyelopathy or Wobbler's syndrome in dogs. His most cited studies deal with the prevalence of thoracic vertebral malformations, meningoencephalomyelitis of unknown origin and spinal arachnoid diverticula in dogs.

Dr. De Decker, Steven

- Head of Neurology and Neurosurgery Service, Royal Veterinary College - Hertfordshire, United Kingdom
- Head and Professor of the Neurology and Neurosurgery Service of the Royal Veterinary College - Hertfordshire, UK
- Past President of the British Veterinary Neurological Society.
- Doctor of Veterinary Neurology and Neurosurgery, University of Ghent, Belgium
- Graduate of the University of Ghent, Belgium

Gracias a TECH podrás aprender con los mejores profesionales del mundo"

Management

Dr. Moya García, Sergio

- Doctoral candidate with the Chair of Surgery at the Faculty of Veterinary Medicine of Córdoba
- Miembro de Royal Collage Veterinary Surgeon (MRCVS)
- Member of the Endoscopy Group (GEA) of the Association of Veterinary Specialists in Small Animals (GEA-AVEPA) and of the Association of Veterinary Specialists in Minimally Invasive Medicine (AEVMI) and of the Neurology Group of AVEPA
- Vocal of Small Animals of the Official College of Veterinarians of Malaga since 2014
- Headof ATV training for AVEPA. Postgraduate in Neurology by the European School of Veterinary Studies Postgraduate (ESVP) Master's Degree in Clinical and Therapeutic Research from the University of Las Palmas de Gran Canaria
- Veterinary Specialist Degree in Endoscopy and Minimally Invasive Surgery by the University of Extremadura
- Assistance Director of the Vetersalud Dr. Moya Day Hospital and Head of the Neurology Department of the Bluecare Animal Hospital
- Currently pursuing neurology accreditation by AVEP

Professors

Dr. Ródenas González, Sergio

- Graduated from the Veterinary University of Cáceres (Uex), he did an internship in the Surgery Department of the same faculty
- Doctorate in Neurology at the Veterinary Faculty of Maisons Alfor;
- Stays in American Universities and European reference centers in Neurology and Neurology services (University of Davis California, Pennsylvania, Guelph (OVC), Animal Health Trust, etc)
- ECVN Diplomate and European specialist in veterinary neurology
- 2 years in a referral center in England (SCVS) in the Neurology and Neurosurgery Department
- One year clinical instructor in Neurology and Neurosurgery at the Faculty of Veterinary Medicine of the University of Montreal (Canada)
- In Canada, responsible for Neurology and Neurosurgery in two referral centers while continuing his work in England for two years
- Numerous national and international publications, as well as speaker at numerous international congresses on veterinary neurology and neurosurgery

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

Dr. Maeso Ordás, Christian

- LV. PGCert Neuro. Degree in Veterinary Medicine from the University of Extremadura (2011)
- 2020, he joined Anicura Ars Veterinaria as a clinical veterinarian in the Neurology Service
- General veterinarian for three years in different veterinary clinics nationwide
- Two general internships at the Rof Codina Veterinary Hospitals in Lugo (University of de Compostela) and Ars Veterinaria (Barcelona) in 2013 and 2015 respectively
- 2016: a specialty internship in Neurology and Neurosurgery at the Anicura Valencia Sur Veterinary Hospital
- ECVN European Residency in 2017 at Ars Veterinaria
- He has attended multiple national and international courses and congresses in the specialty of Neurology
- Dr. Blasco has published in national and international journals and congresses. Training in different European reference veterinary hospitals (United Kingdom, Italy)
- Member of veterinary associations such as AVEPA and ESVN. He focuses his current interest within the field of neurology on neuromuscular diseases, epilepsy, as well as neurosurgery

Dr. Gómez Álvarez, Christian Mauricio

- Veterinarian Doctor Universidad de La Salle (ULS)
- More than 10 years of experience in Clinical Neurolog
- Master's Degree (MSc) in Physiology UNAL
- ACVIM-Neurology Course Neuroimaging, Neuropathology and Electrophisiology 2020
- Ohio State University Braincamp Course in Neurología y Neurociencias 2016
- Postgraduate Course in Advanced Clinical Neurology, UCASAL, Argentina
- Clinical Neurology Fellowship, University of Montreal, Canada

Dr. Mangas Ballester, Teresa

- Degree in Veterinary Medicine from the University of Extremadura (2009)
- Since 2017 she has been working as Head of the Anesthesia Service at AniCura Valencia Sur Veterinary Hospital
- Subsequently, she worked as a resident intern at the Complutense University Clinical Veterinary Hospital for 3 years
- In 2015 she started working at the Jesús Usón Minimally Invasive Surgery Center, as a researcher in the Anesthesiology Unit. There, in addition to participating as a professor in the official university Master's Degree in endoscopy and minimally invasive surgery in small animals and courses in small animal anesthesia, she participated in several research projects
- During his professional career, he has made stays in hospitals in Europe and North America, as well as participating in several publications and communications in congresses
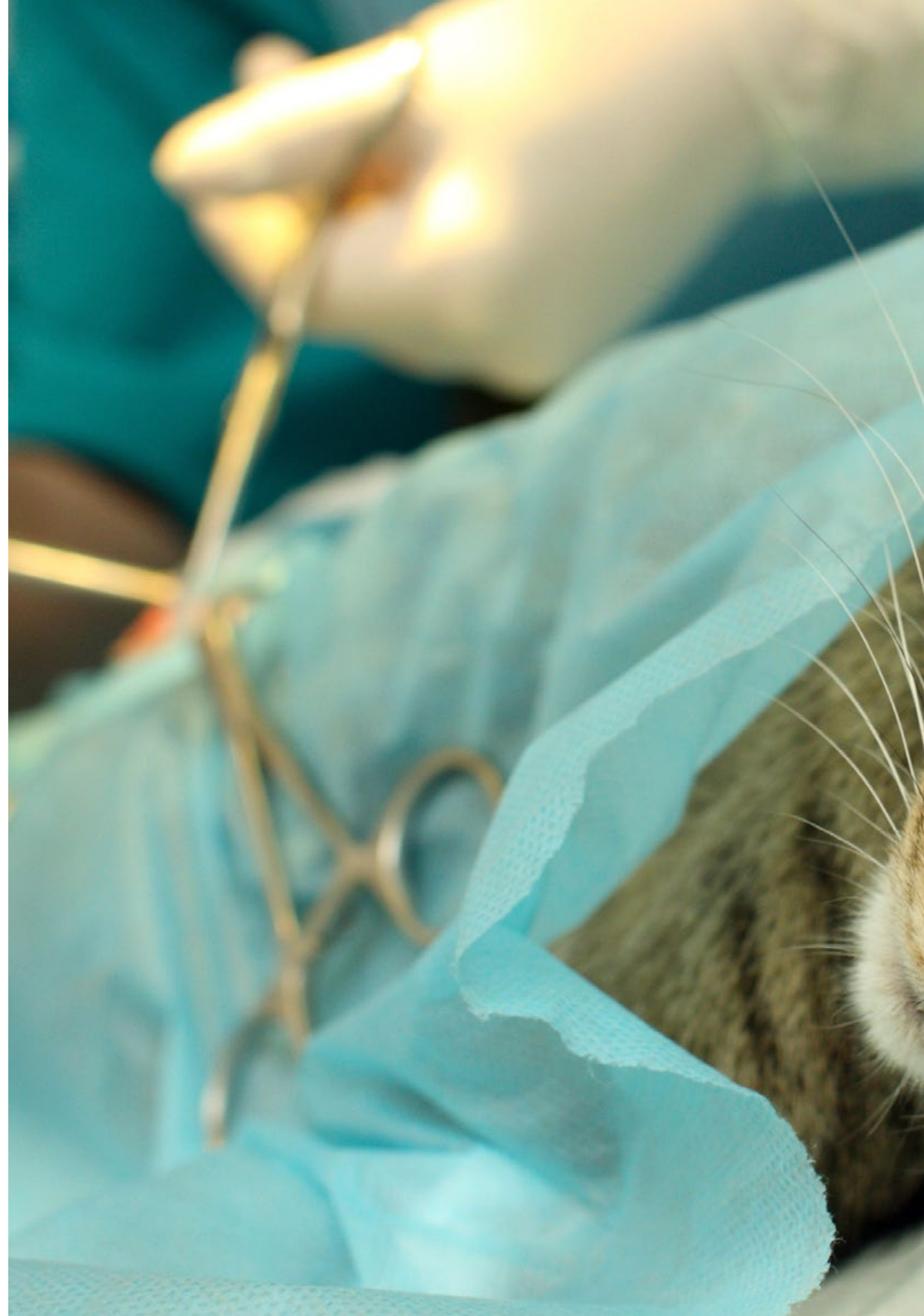
Dr. Luque Garrido, Jorge Antonio

- Veterinarian and co-owner of Clínicas Vetersalud El Dogo Azul. Marbella
- Diploma in Acupuncture and Traditional Chinese Medicine at IVAS Barcelona
- Training in Rehabilitation and Physiotherapy at FORVET (Madrid)
- Certificate in Rehabilitation and Physiotherapy at ESAVS Vienna (Austria)
- Certificate in Chiropractic at AIQA Malaga.
- Specialist in Veterinary Sports Medicine at CRI. Zurich (Switzerland)
- Medical Director of the Rehavet Sport veterinary rehabilitation center
- Collaborating professor in the Master of Physiotherapy and Rehabilitation at UCM from 2012 to 2020
- Collaborating Professor in Rehabilitation Courses for veterinarians at FORVET
- Collaborating Professor in the IVAS Acupuncture Diploma Courses
- Speaker at various AVEPA specialty congresses, lectures and specialized seminars on rehabilitation and sports medicine, both nationally and internationally
- Member of ISDVMA, VEPRA, IVAS, AVEPA, AMVEAC ,AARV

" *An impressive teaching staff, made up of European specialists in different areas of expertise, will be your teachers: a unique occasion not to be missed"*

05
Structure and Content

The development of the syllabus has been carried out according to the criteria of educational effectiveness that TECH offers. Through a complete and concrete syllabus, the student will go through all the essential learning areas proposed, gradually acquiring the necessary skills to put the necessary knowledge into practice. A well-developed learning scheme that will allow you to learn in a continuous, efficient and customized way.

"A comprehensive teaching program, structured in well-developed units, oriented towards learning that is compatible with your personal and professional life"

Module 1. Nervous System Embryology, Anatomy and Physiology

1.1. Nervous System Embryology
    1.1.1. Brain Embryology
    1.1.2. Spinal Cord Embryology
1.2. Basic and Functional Anatomy of the Brain
    1.2.1. Anatomy of the Prosencephalon
    1.2.2. Anatomy of the Brain Stem
    1.2.3. Anatomy of the Cerebellum
1.3. Basic and Functional Spinal Cord Anatomy
    1.3.1. Spinal Cord Anatomy
    1.3.2. Main Spinal Cord Pathways
1.4. Anatomy of the Peripheral Nerves I
    1.4.1. Cranial Nerves
    1.4.2. Spinal Nerves
1.5. Anatomy of the Peripheral Nerves II
    1.5.1. Autonomic Nervous System: Sympathetic and Parasympathetic
1.6. Anatomy of the Peripheral Nerves III
    1.6.1. Sympathetic Nervous System
    1.6.2. Parasympathetic Nervous System
1.7. Anatomy and Physiology of the Motor Unit
    1.7.1. Anatomy
    1.7.2. Physiology
1.8. Vascular Anatomy of the Brain
    1.8.1. Arterial Irrigation
    1.8.2. Venous Irrigation
1.9. Vascular Anatomy of the Spinal Cord
    1.9.1. Arterial Irrigation
    1.9.2. Venous Irrigation
1.10. Skeletal System
    1.10.1. Cranial Bones, Joints and Cranial Nerve Outlets
    1.10.2. Vertebrae, Joints and Intervertebral Discs

Module 2. Neurological Examination and Neurolocalization

Module 4. Anesthesia, Analgesia Neurosurgery

4.1. Anesthesia in Neurological Patients
    4.1.1. Types of Anesthetic Agents
    4.1.2. Protocols of the Different Procedures

4.2. Analgesia in Neurological Patients
    4.2.1. Types
    4.2.2. Indications

4.3. Neurosurgery
    4.3.1. Patient Preparation
    4.3.2. Material

4.4. Herniated Cervical Disc
    4.4.1. Surgical Approach and Technique

4.5. Thoracolumbar Disc Herniation
    4.5.1. Approach and Surgical Techniques

4.6. Atlantoaxial Dislocation and Caudal Cervical Spondylomyelopathy
    4.6.1. Atlantoaxial Dislocation. Surgical Approach and Technique
    4.6.2. Caudal Cervical Spondylomyelopathy. Surgical Approach and Technique

4.7. Fractures, Vertebral Dislocations, Vertebral Diverticulum and Vertebral Malformations
    4.7.1. Vertebral Fractures, Surgical Approach and Resolution
    4.7.2. Vertebral Dislocations, Surgical Approach and Resolution
    4.7.3. Arachnoid Diverticulum, Surgical Approach and Resolution
    4.7.4. Vertebral Malformations, Types and Medical Management

4.8. Principles of Intracranial Surgery
    4.8.1. Indications
    4.8.2. Approach
    4.8.3. Surgical Technique

4.9. Surgery in Spinal and Intracranial Neoplasia
    4.9.1. Approach
    4.9.2. Surgical Technique

4.10. Rehabilitation
    4.10.1. Practical Application in Neurological Patients
    4.10.2. Kinesiotherapy
    4.10.3. Laser Therapy
    4.10.4. Hydrotherapy
    4.10.5. Electrostimulation

Module 5. Brain Pathologies

5.1. Basic Location
    5.1.1. Mental Status Disorders

5.2. Vascular Diseases
    5.2 1. Types
    5.2.2. Pathogenesis

5.3. Inflammatory and Infectious Diseases of the Brain
    5.3.1. Types
    5.3.2. Pathophysiology

5.4. Traumatic Diseases
    5.4.1. Types
    5.4.2. Pathophysiology

5.5. Congenital Brain Abnormalities
    5.5.1. Types
    5.5.2. Pathophysiology

5.6. Metabolic Acquired Diseases
    5.6.1. Types
    5.6.2. Pathophysiology

5.7. Primary Metabolic Diseases (Organic Acidurias, Mitochondrial)
    5.7.1. Types
    5.7.2. Pathophysiology

5.8. Brain Tumors
    5.8.1. Types
    5.8.2. Histopathology
    5.8.3. Prognosis

5.9. Degenerative Diseases
    5.9.1. Types and Clinical Signs

5.10. Toxic Diseases
    5.10.1. Types and Clinical Signs

Module 6. Spinal Cord Pathologies

6.1.   Basic Localization, Gait Disorders, Spinal Shock
    6.1.1.   Clinical Signs Depending on Localization
    6.1.2.   Spinal Shock and Schiff Sherrington
6.2.   Vascular Diseases of the Spinal Cord
    6.2.1.   Fibrocartilaginous Embolism
    6.2.2.   Myelopathies due to Hemorrhage or Bleeding
6.3.   Inflammatory Diseases
    6.3.1.   Meningomyelitis Granulomatosa
    6.3.2.   Steroid-Responsive Meningitis-Arteritis
6.4.   Infectious Diseases
    6.4.1.   Viral Diseases
    6.4.2.   Bacterial Diseases
    6.4.3.   Protozoan Diseases
    6.4.4.   Fungal Diseases
6.5.   Spinal Trauma
    6.5.1.   Important Aspects
    6.5.2.   Pathophysiology
    6.5.3.   Congenital Anomalies of the Spinal Cord
        6.5.3.1. Hemivertebra
        6.5.3.2. Arachnoid Diverticula and other Congenital Diseases
6.6.   Metabolic Diseases
    6.6.1.   Primary
    6.6.2.   Acquired
6.7.   Spinal Cord Neoplasms
    6.7.1.   Types of Neoplasia
6.8.   Degenerative Myelopathy and other Degenerative Abnormalities
    6.8.1.   Degenerative Myelopathy
    6.8.2.   Other Degenerative Abnormalities
6.9.   Herniated Disc
    6.9.1.   Hansen I
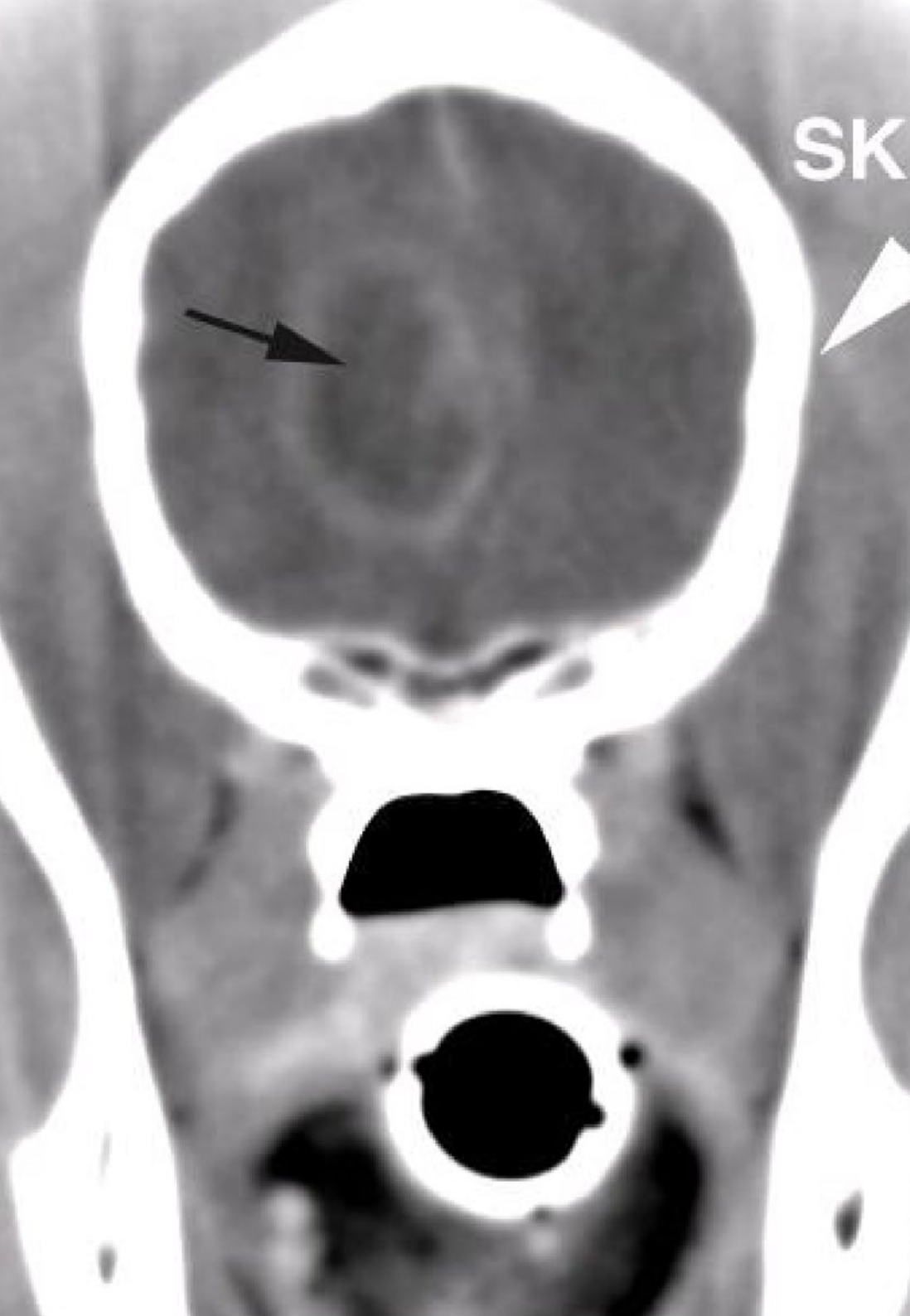   6.9.2.   Hansen II
    6.9.3. ANNPE, HNPE
6.10.   Cervical Spondylomyelopathy and Atlantoaxial Dislocation
    6.10.1.   Etiology
    6.10.2.   Pathogenesis and Clinical Signs

Module 7. Neuromuscular Diseases

7.1.   Classification and Diagnostic methods in neuromuscular diseases
    7.1.1.   Classification
    7.1.2.   Diagnosis
7.2.   Nerve Impulse Generation and Transmission
    7.2.1.   Physiological Mechanisms
7.3.   The Neuronal Membrane
    7.3.1.   Composition and Structure
7.4.   Mononeuropathies I
    7.4.1.   Congenital
7.5.   Mononeuropathies II
    7.5.1. Acquired
7.6.   Acute Polyneuropathies
    7.6.1.   Types, Diagnosis and Treatment
7.7.   Chronic Polyneuropathies
    7.7.1.   Congenital
    7.7.2.   Degenerative
7.8.   Acquired Polyneuropathies
    7.8.1.   Types, Diagnosis and Treatment
7.9.   Myopathies
    7.9.1.   Types, Diagnosis and Treatment
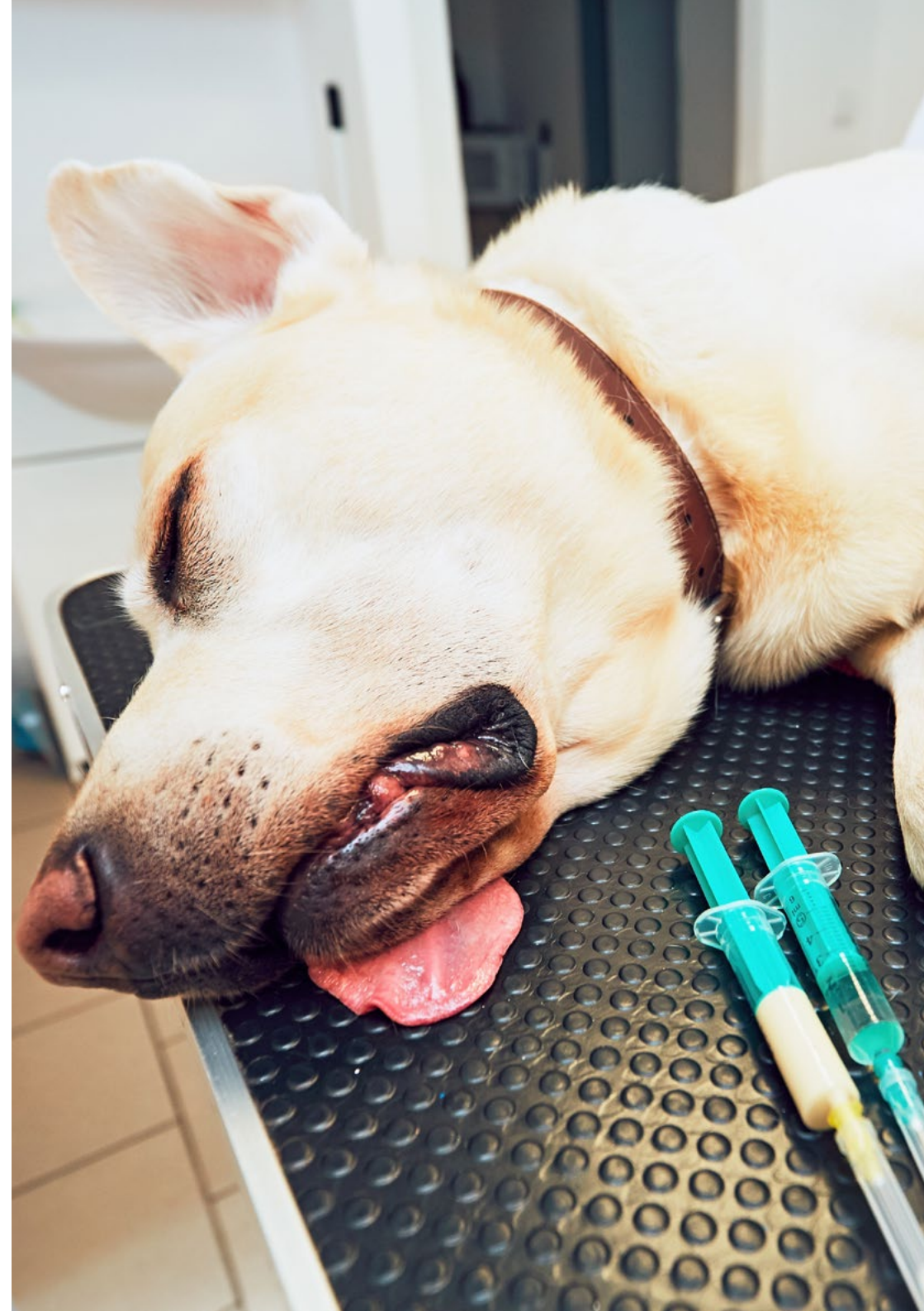7.10.   Neuromuscular Junction Diseases
    7.10.1.   Myastemia Gravis

Module 8. Cranial Nerve Disorders, Vestibular Syndrome and Canine and Feline Epilepsy. Involuntary Movement Disorders

Module 10. Neurological Emergencies

You will learn in such a way that what you have studied will become fixed and transformed into knowledge, through a structured course that will cover all the points of interest that you need to refresh your practice in Small Animal Neurology"

06
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.

"*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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

20%

15%

15%

3%

20%

17%

7%

3%
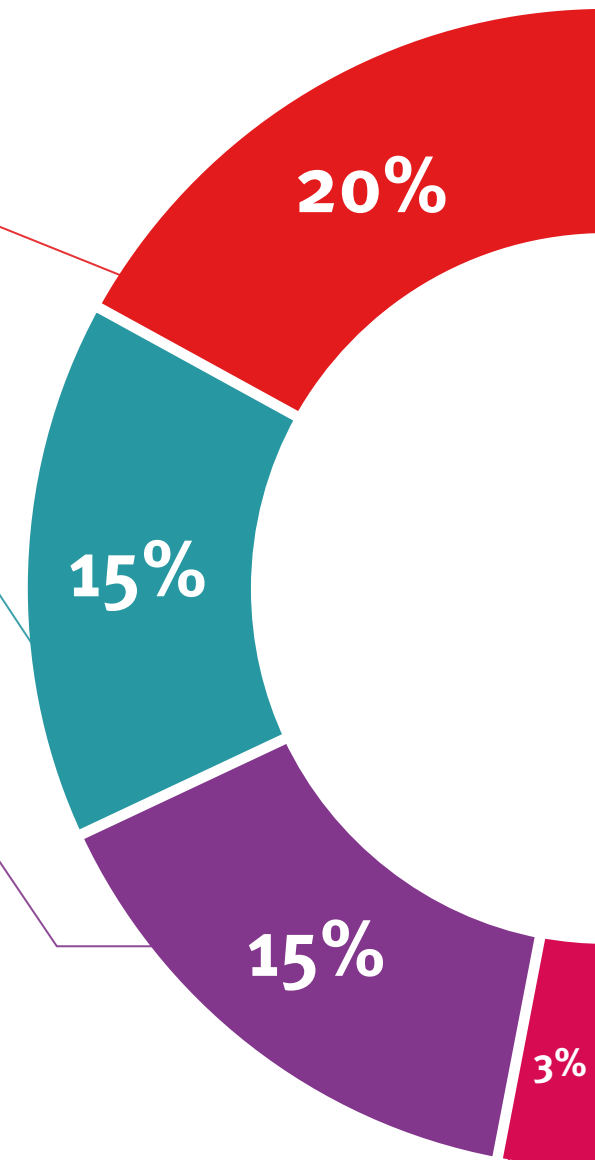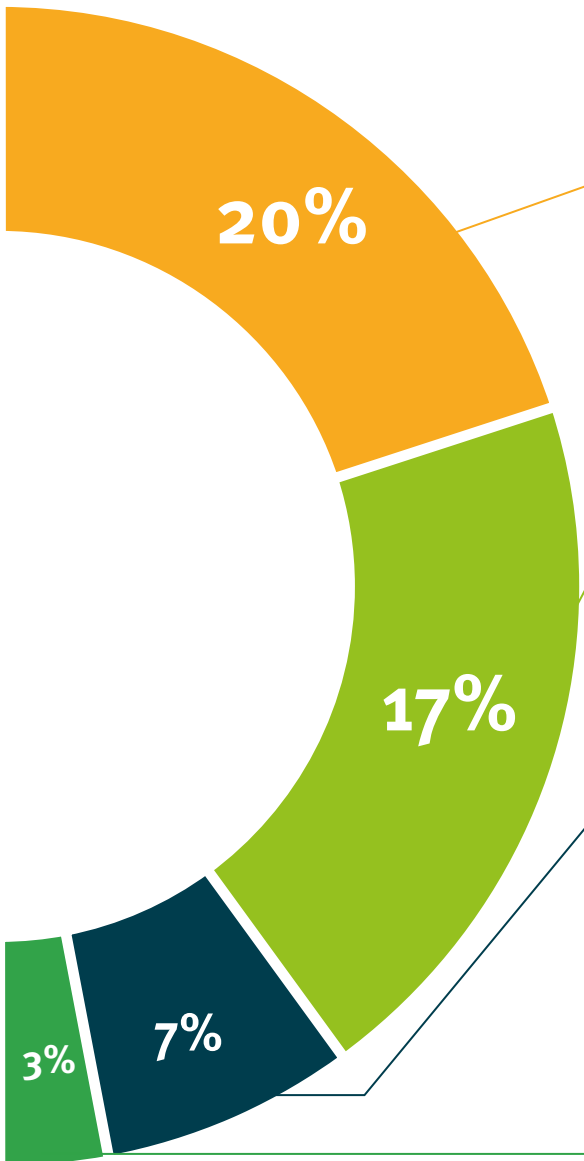
Expert-Led Case Studies and Case Analysis

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.

07

Certificate

The Professional Master's Degree in Neurology in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"

This **Professional Master's Degree in Small Animal Neurology** contains the most complete and up-to-date scientific program on the market.
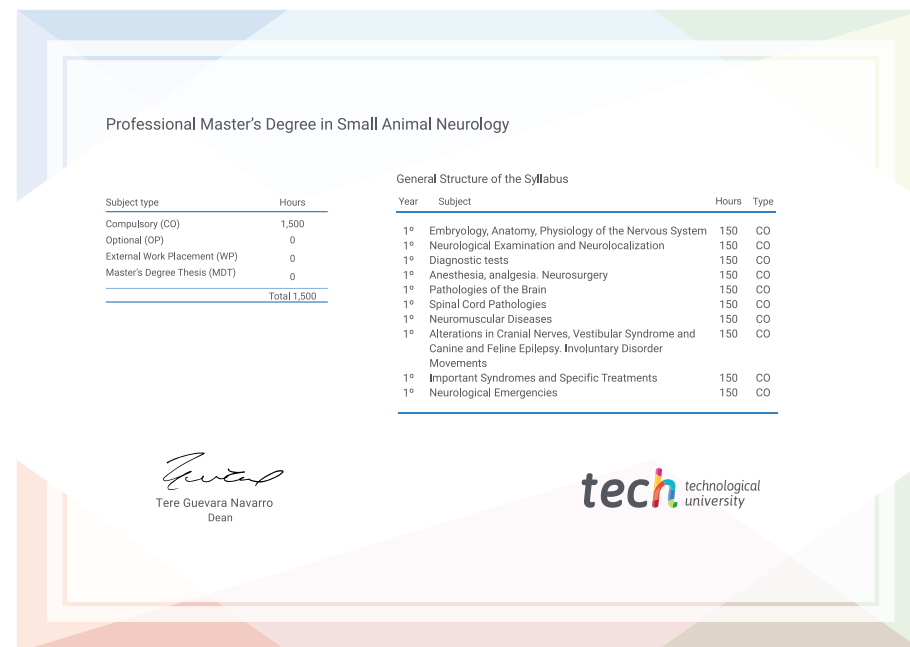
After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and will meet the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Master's Degree in Small Animal Neurology**

Official Nº of hours: **1,500 h.**

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tech technological university

Awards the following
DIPLOMA
to

Mr./Ms. _____, with identification number _____
For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Small Animal Neurology

This is a qualification awarded by this University, equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

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Professional Master's Degree in Small Animal Neurology

Subject type	Hours
Compulsory (CO)	1,500
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
Total	1,500

General Structure of the Syllabus

Year	Subject	Hours	Type
1º	Embryology, Anatomy, Physiology of the Nervous System	150	CO
1º	Neurological Examination and Neurolocalization	150	CO
1º	Diagnostic tests	150	CO
1º	Anesthesia, analgesia. Neurosurgery	150	CO
1º	Pathologies of the Brain	150	CO
1º	Spinal Cord Pathologies	150	CO
1º	Neuromuscular Diseases	150	CO
1º	Alterations in Cranial Nerves, Vestibular Syndrome and Canine and Feline Epilepsy. Involuntary Disorder Movements	150	CO
1º	Important Syndromes and Specific Treatments	150	CO
1º	Neurological Emergencies	150	CO

Tere Guevara Navarro
Dean

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

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Professional Master's Degree
Small Animal Neurology

» Modality: **Online**
» Duration: **12 months.**
» Certificate: **TECH Technological University**
» Dedication: **8h/week**
» Schedule: **at your own pace**
» Exams: **online**

Professional Master's Degree
Small Animal Neurology

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