

Master's Degree

Veterinary Oncology  
in Small Animals





## Master's Degree

### Veterinary Oncology in Small Animals

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/veterinary-medicine/master-degree/master-veterinary-oncology-small-animals](http://www.techtitute.com/us/veterinary-medicine/master-degree/master-veterinary-oncology-small-animals)

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# 01

# Introduction

The program in Veterinary Oncology in Small Animals provides up-to-date, relevant and practical training on the different oncological diseases that affect pets. It details aspects of the approach/management and latest techniques in the field of Veterinary Oncology, from a multidisciplinary perspective.

This training provides an in-depth study of the different oncologic diseases affecting small animals. It starts with a solid understanding of the basics in tumor biology, diagnostic imaging techniques and pathological anatomy and treatment options, including palliative care and communication with the owner, which is extremely important in this type of disease.





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*Become one of the most demanded professionals today: specialize in Veterinary Oncology in Small Animals with this complete online Master's Degree”*

The Master's Degree in Veterinary Oncology in Small Animals is a program developed by veterinary professionals with extensive experience in Small Animal Clinical Oncology both in the Clinical and Teaching areas.

All the professors on the program are clinicians and/or university professors with experience in both undergraduate and postgraduate training. The participating professors are specialized in different areas involved in Small Animal Oncology such as clinical oncologists, oncological surgeons, radiologists and anatomopathologists. The aim is to offer a Master's Degree that takes a multidisciplinary approach to oncology.

Small Animal Oncology is a subspecialty of Internal Medicine which has experienced great development in the last decades. Our professors are at the forefront of the latest diagnostic techniques and treatment of oncologic diseases in small animals. Due to their specialized training, they have designed a useful, practical program adapted to the current situation, an increasingly demanding and specialized reality.

The teaching team imparts specialized knowledge in each of the aspects covered by Veterinary Oncology, starting from tumor biology, with a general approach to oncology patients from the point of view of clinical oncology, oncologic surgery, specialized veterinary practice in diagnostic imaging and anatomo-pathology, including an exhaustive study of the most frequent types of tumors, reaching the most complex procedures and rare diseases. This program specializes general practitioners in veterinary oncology in an area that is increasingly in demand, partly due to its prevalence, and partly to the specialization this area requires and demands. The modules gradually present established knowledge, starting with the understanding of tumor biology, the approach to oncology patients, the main diagnostic and treatment techniques used in cancer, and ending with the development of specific tumors. It compiles the author's experience, without forgetting scientific rigor and the most important updates based on evidence. It addresses the diseases, the action protocols and the integral approach to patients, considering the disease, the patient and the owner in line with evidence-based medicine. All the modules include a large amount of multimedia material: photos, videos, diagrams, imaging techniques and surgery, all of which are crucial in the specialty.

As it is an online Master's Degree, the student is not conditioned by fixed schedules, nor does he/she need to move to another physical location. All of the content can be accessed at any time of the day, so you can balance your working or personal life with your academic life.

This **Master's Degree in Veterinary Oncology in Small Animals** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ 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 the teacher and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection
- ♦ Supplementary documentation databases are permanently available, even after the course



*You will evaluate the diagnostic and therapeutic approach in injection site associated sarcomas in cats from professionals with years of experience"*

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*Get a complete and adequate qualification in Veterinary Oncology in Small Animals with this highly effective Master's Degree and pave new paths to your professional advancement”*

Our teaching staff is made up of professionals from different fields related to this specialty. That way, TECH ensures to offer the updating objective it intends to provide. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will bring the practical knowledge from their own experience to the course: one of the differential qualities of this course.

This mastery of the subject is complemented by the effectiveness of the methodological design used in this Master's Degree in Veterinary Oncology in Small Animals. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. That way, students will study with a range of easy-to-use and versatile multimedia tools that will give them the necessary skills needed during training

The design of this program is based on Problem-Based Learning: an approach that views learning as a highly practical process. To achieve this remotely, TECH will use telepractice: with the help of an innovative interactive video system and Learning from an Expert, the student will be able to acquire the knowledge as if they were facing the scenario they are learning at that moment. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

*This program will give you a sense of confidence when practising veterinary medicine, which will help you grow both personally and professionally.*

*Learn in an efficient way, with a real qualification objective, with this unique Master's Degree for its quality and price, in the online teaching market.*



# 02 Objectives

The objective is to train highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping medical professionals reach a much higher level of expertise and control. A goal that, in just a few months, you will be able to achieve with a highly intensive and precise course.







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*If your objective is to broaden your skill set to include new paths of success and development, this is your program: A training that aspires to excellence”*



## General Objectives

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- ♦ Examine the basis of tumor biology and etiology of cancer
- ♦ Analyze the different types of epidemiologic studies used in cancer research
- ♦ Generate a protocol for a general approach to cancer patients
- ♦ Perform cytological technique and interpretation
- ♦ Propose a system for biological specimen referral to anatomic pathology laboratories and analyze the information provided in the anatomopathological report
- ♦ Examine the different modalities in imaging techniques used to diagnose cancer patients
- ♦ Present the molecular diagnostic techniques available in oncology
- ♦ Evaluate the therapeutic modalities of cancer treatment such as surgery and chemotherapy
- ♦ Define new treatment options for cancer patients such as electrochemotherapy and molecular/targeted therapy
- ♦ Evaluate therapeutic modalities in new-onset and/or less accessible cancers
- ♦ Define para-neoplastic syndromes and associated complications
- ♦ Analyze key aspects of owner communication about small animal cancers
- ♦ Specify palliative care in cancer patients
- ♦ Define the generalities of the classification and diagnostic and therapeutic approach to cutaneous and subcutaneous tumors
- ♦ Present the main cutaneous and subcutaneous epithelial tumors
- ♦ Propose diagnostic and therapeutic protocols for canine and feline mastocytoma
- ♦ Propose diagnostic and therapeutic protocols for soft tissue sarcomas
- ♦ Evaluate the diagnostic and therapeutic approach in injection site-associated sarcomas in cats
- ♦ Establish action, staging and therapeutic protocols for melanoma in dogs
- ♦ Analyze the principles of skin tumor oncologic surgery and reconstruction techniques
- ♦ Define clinical diagnostic and therapeutic protocols for tumors affecting the respiratory tract in dogs and cats
- ♦ Compile the different techniques that can be used in the surgical treatment of respiratory tumors in dogs and cats
- ♦ Analyze the diagnostic and therapeutic approach to the main digestive tumors in dogs and cats
- ♦ Define the risk and prognostic factors in digestive tumors in dogs and cats
- ♦ Examine the different techniques available for the surgical approach of the main neoplasms in dogs and cats
- ♦ Generate diagnostic and therapeutic algorithms for mesothelioma
- ♦ Develop action protocols for the main endocrine tumors in dogs and cats
- ♦ Evaluate the diagnostic and therapeutic approach to canine mammary tumors
- ♦ Analyze the main ophthalmic tumors in dogs and cats, as well as the diagnostic evaluation and therapeutic approach to these types of tumors
- ♦ Present classical methods, as well as the most advanced and novel techniques for the surgical approach to endocrine, mammary and ocular tumors
- ♦ Develop diagnostic and therapeutic protocols for the main male and female genital tract tumors
- ♦ Generate diagnostic and therapeutic algorithms for the main urinary tumors in dogs and cats
- ♦ Evaluate the different diagnostic procedures and specify treatments for the main tumors affecting the nervous system in dogs and cats
- ♦ Examine the different techniques that exist for surgically treating patients with genitourinary and nervous system tumors



- ◆ Identify hematopoietic neoplasms and histiocytic diseases in cats and dogs
- ◆ Evaluate the different presentations of hematopoietic tumors, knowing their etiology, pathology, classification and staging
- ◆ Specify specific treatments for each type of hematopoietic tumor or histiocytic disease
- ◆ Establish knowledge of the prognosis of hematopoietic tumors and histiocytic diseases
- ◆ Develop a diagnostic and therapeutic protocol for the approach to hemangiosarcoma, with special emphasis on splenic hemangiosarcoma
- ◆ Establish guidelines for the diagnosis and treatment of thymoma
- ◆ Examine the main cardiac tumors in small animals and evaluate the therapeutic alternative for them
- ◆ Generate diagnostic and therapeutic algorithms for the main musculoskeletal tumors in dogs and cats
- ◆ Describe the main techniques for the surgical approach to splenic hemangiosarcoma, cardiac tumors, thymoma and osteosarcoma



## Specific Objectives

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### **Module 1. Introduction to Oncology. Etiology, Biology and Epidemiology of Cancer. Anatomopathologic Diagnosis**

- ♦ Analyze the genetic basis of cancer, as well as the influence of chemical, physical, hormonal and viral factors in its development
- ♦ Define tumor biology and metastases formation
- ♦ Compile the different types of epidemiologic research used in the study of cancer
- ♦ Define the concept of translational medicine and its implication in human cancer research
- ♦ Propose protocols for the diagnostic and therapeutic approach in cancer patients
- ♦ Develop the cytologic technique and interpretation in depth
- ♦ Identify the key points to correctly refer biological samples to anatomic pathology laboratories
- ♦ Establish the guidelines to correctly interpret anatomic pathology reports

### **Module 2. Cancer Diagnosis. Imaging and Molecular Diagnostic Techniques. Chemotherapy, Electrochemotherapy and Molecular/Targeted Therapy**

- ♦ Develop radiology as an imaging technique in cancer patient staging
- ♦ Analyze ultrasound as an imaging technique in the diagnosis of cancer patients
- ♦ Evaluate computed tomography and magnetic resonance imaging as advanced imaging techniques in the diagnosis of oncologic patients
- ♦ Specify the advantages and limitations of diagnostic imaging techniques to define their scope of application
- ♦ Evaluate surgery as one of the first cancer treatment modalities

- ♦ Define the concepts of surgical margins and types of surgery in oncology, as well as the advantages and limitations of this therapeutic modality in cancer treatment
- ♦ Develop new therapeutic modalities in the treatment of oncology patients such as electrochemotherapy and molecular/targeted therapy
- ♦ Establish the side effects, advantages and limitations of chemotherapy, electrochemotherapy and molecular/targeted therapy in the treatment of oncology patients

### **Module 3. Cancer Patient Treatment. Radiotherapy, Immunotherapy, Interventional Oncology. Complications in Oncological Therapy. Palliative Care**

- ♦ Analyze the indications, advantages, limitations, and side effects of radiation therapy as an oncological treatment modality in small animals
- ♦ Examine the indications, advantages, limitations, and side effects of immunotherapy as a small animal oncology treatment modality
- ♦ Evaluate the indications, advantages, limitations, and side effects of interventional oncology as a small animal oncology treatment modality
- ♦ Define paraneoplastic syndromes in dogs and cats
- ♦ Propose action protocols for oncological emergencies
- ♦ Establish guidelines to establish a proper line of communication with cancer patient owners
- ♦ Analyze the treatment of pain in oncological patients
- ♦ Develop nutritional support plans for cancer patients

**Module 4. Cutaneous and Subcutaneous Tumors**

- ♦ Present general protocols for the diagnosis of cutaneous and subcutaneous tumors in dogs and cats
- ♦ Define epithelial tumors in dogs and cats
- ♦ Analyze the diagnostic and therapeutic approach to mastocytoma in dogs and cats
- ♦ Present the classification of soft tissue sarcomas
- ♦ Propose diagnostic and therapeutic protocols for soft tissue sarcomas
- ♦ Define risk factors and prognoses in canine and feline mastocytomas
- ♦ Establish the factors involved in the recurrence of soft tissue sarcomas

**Module 5. Injection Site Sarcomas. Melanoma Respiratory Tumors**

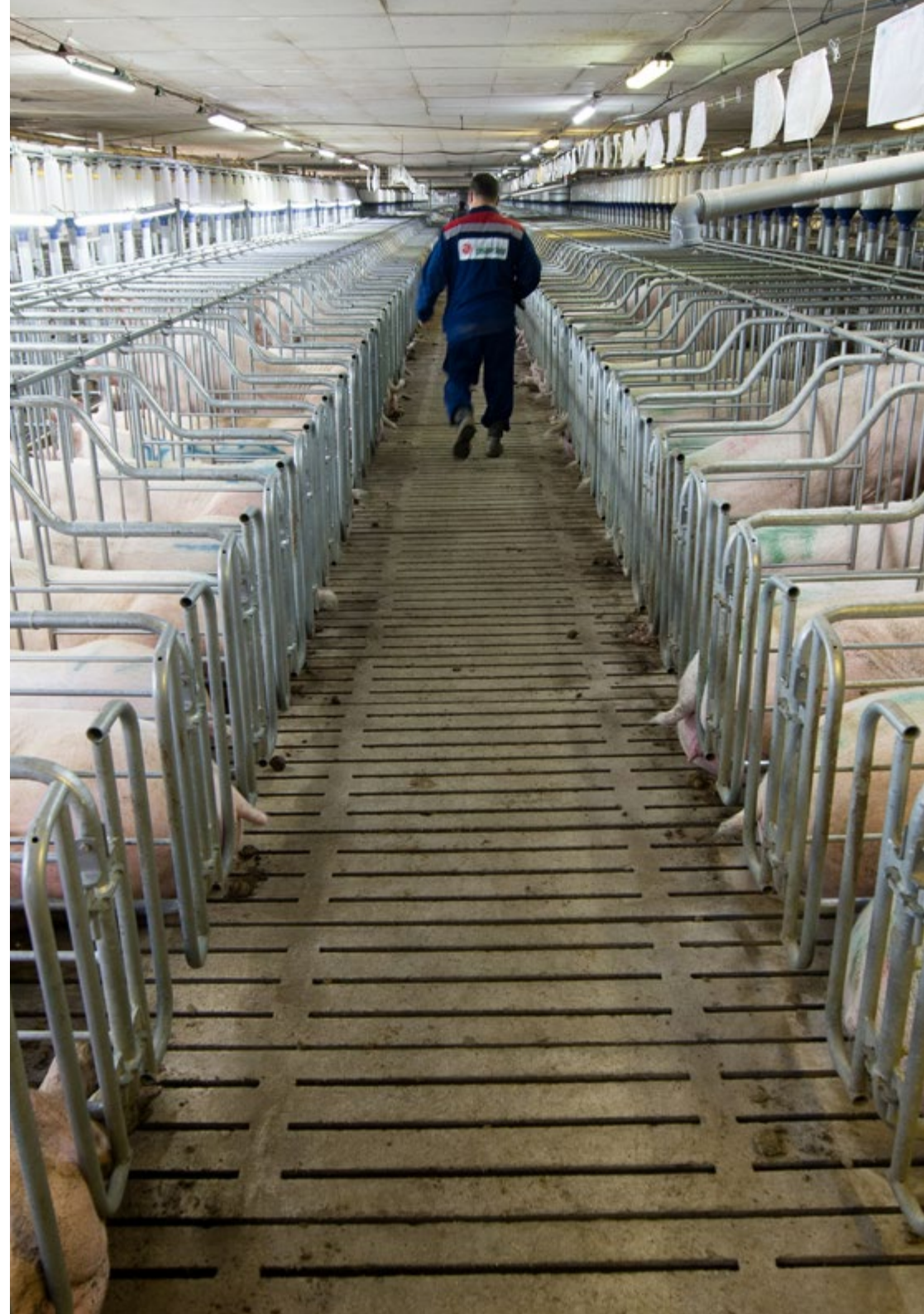
- ♦ Generate expertise in the diagnosis, treatment, prognosis and prevention of feline injection site sarcomas
- ♦ Develop a systematic approach to the evaluation and treatment of canine melanoma
- ♦ Establish prognostic criteria in canine melanoma
- ♦ Define skin anatomy and healing as principles that enable the surgical approach to cutaneous and subcutaneous tumors
- ♦ Evaluate the different reconstructive techniques that can be used in extensive resections of cutaneous tumors
- ♦ Establish diagnostic and therapeutic protocols for tumors of the nasal plane, nasal cavity and sinuses, larynx, trachea and lung parenchyma
- ♦ Develop the different techniques that can be used in the surgical treatment of tumors of the nasal plane, nasal cavity and sinuses, larynx, trachea and lung parenchyma

**Module 6. Digestive Tract Tumors. Mesothelioma**

- ♦ Define tumors in dogs and cats affecting the oral cavity, esophagus, stomach, small and large intestine, anal sacs and liver
- ♦ Establish diagnostic and therapeutic protocols for the main tumors affecting the oral cavity, esophagus, stomach, small and large intestine and anal sacs
- ♦ Analyze the main risk factors influencing the prognosis of patients with tumors of the oral cavity, esophagus, stomach, small and large intestine, anal sacs
- ♦ Identify the anatomy and type of scarring of the digestive tract that is clinically relevant for the surgical approach to oncological diseases of the digestive tract
- ♦ Define the main surgical techniques of the digestive tract that can be used in the treatment of digestive tumors in dogs and cats
- ♦ Perform the diagnostic and therapeutic approach and evaluate the risk and prognostic factors in liver tumors in dogs and cats
- ♦ Generate diagnostic and therapeutic protocols for mesothelioma

### Module 7. Endocrine System Tumors. Breast Tumors. Ophthalmologic Tumors

- ♦ Generate diagnostic and therapeutic protocols for the main pituitary, adrenal and thyroid gland and exocrine pancreas tumors in dogs and cats
- ♦ Establish clear, patient-based recommendations on the therapeutic alternatives for pituitary, adrenal, thyroid and exocrine pancreas tumors in dogs and cats
- ♦ Develop, in detail, the techniques involved in the surgical approach to pituitary, adrenal and thyroid gland and exocrine pancreas tumors in dogs and cats, including potential complications
- ♦ Compile the information available on the therapy of chronic degenerative valve disease
- ♦ Propose protocols for making decisions in breast oncology
- ♦ Define the risk factors associated with the occurrence and prognosis of canine and feline mammary tumors
- ♦ Demonstrate the importance of peri-operative care of patients with breast tumors
- ♦ Establish action protocols for the main canine and feline ophthalmologic tumors



**Module 8. Genitourinary Tumors. Nervous System Tumors**

- ♦ Define the different tumors affecting the urogenital tract in dogs and cats
- ♦ Evaluate the classical and minimally invasive diagnostic techniques used in tumors affecting the urogenital tract in dogs and cats
- ♦ Establish the different medical and surgical treatments for urogenital tumors in dogs and cats
- ♦ Analyze the new minimally invasive therapeutic strategies and interventional radiology in tumors affecting the urogenital system in dogs and cats
- ♦ Establish the risk and prognostic factors in canine and feline urogenital tumors
- ♦ Define the different brain and spinal cord tumors affecting dogs and cats
- ♦ Generate algorithms for the diagnosis of nervous system tumors in dogs and cats based on clinical history, physical examination and imaging techniques
- ♦ Develop the different therapeutic alternatives for the treatment of nervous system tumors in dogs and cats

**Module 9. Hematopoietic Tumors**

- ♦ Define the appropriate diagnosis and clinical staging of canine and feline lymphoma
- ♦ Compile the different classifications of canine and feline lymphoma
- ♦ Establish the different treatments for induction, reinduction and rescue of canine and feline lymphoma
- ♦ Discuss new treatment strategies and future alternatives for canine lymphoma
- ♦ Examine the diagnostic and therapeutic approach to both canine and feline lymphocytic leukemia

- ♦ Implement the diagnostic and therapeutic approach to myeloproliferative diseases
- ♦ Demonstrate knowledge of the different aspects of tumor behavior in histiocytic diseases
- ♦ Substantiate the appropriate prognosis for each hematopoietic neoplasm and histiocytic disease according to its presentation and response to treatment

**Module 10. Hemangiosarcoma. Thymoma. Cardiac Tumors. Musculoskeletal Tumors**

- ♦ Establish the basis for the diagnosis of hemangiosarcoma in dogs and cats
- ♦ Develop the medical and surgical treatment of splenic hemangiosarcoma
- ♦ Identify the key aspects in the diagnosis of thymoma
- ♦ Define cardiac tumors affecting dogs and cats
- ♦ Evaluate techniques for treating complications secondary to cardiac tumors
- ♦ Define musculoskeletal tumors
- ♦ Establish management protocols for musculoskeletal tumors
- ♦ Develop conventional treatment and new strategies in the approach to canine osteosarcoma



*A path to achieve specialization and professional growth that will propel you towards a greater level of competitiveness in the employment market"*

# 03 Skills

This Master's Degree in Veterinary Oncology in Small Animals has been created as a high-skilled program for veterinary professionals. This specialization program will help students to appropriately intervene in the different areas of anaesthesiology. A compendium of knowledge that will provide you with the appropriate skills at all stages and developments in the anesthetic and analgesic process, from the initial approach to the patient's discharge.





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*This program will provide you with the personal and professional skills necessary to be able to act in any professional situation in this field of intervention"*



## General Skills

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- ♦ Analyze clinical cases objectively and precisely
- ♦ Generate specialized knowledge to correctly examine, diagnose and treat oncological pathologies based on the latest advances in the specialty
- ♦ Understand and know how to use the necessary tools effectively
- ♦ Understand and know how to implement existing protocols
- ♦ Understand and know how to develop preoperative, operative and postoperative management





## Specific Skills

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- ♦ Generate protocols for a general approach to cancer patients
- ♦ Perform cytological technique and interpretation
- ♦ Propose a system for biological specimen referral to anatomic pathology laboratories and analyze the information provided in anatomopathological reports
- ♦ Examine the different modalities in imaging techniques used to diagnose cancer patients
- ♦ Present the molecular diagnostic techniques available in oncology
- ♦ Evaluate the therapeutic modalities of cancer treatment such as surgery and chemotherapy



*A unique, key, and decisive training experience to boost your professional development”*

04

# Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.



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*A unique opportunity to learn from internationally renowned professors, with teaching, clinical and research experience”*

## Management



### Dr. Ortiz Díez, Gustavo

- ♦ Head of Small Animal Department, Complutense Clinical Veterinary Hospital.
- ♦ Associate Professor, Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, Complutense University of Madrid
- ♦ PhD and Undergraduate Degree in Veterinary Medicine from the UCM.
- ♦ Graduate in Psychology, UNED (2020)
- ♦ AVEPA Accredited Soft Tissue Surgery
- ♦ Member of the scientific committee and current president of GECIRA (AVEPA's Soft Tissue Surgery Specialty Group).
- ♦ Master's Degree in Research Methodology in Health Sciences from the UAB.
- ♦ Specialist in Traumatology and Orthopedic Surgery in Companion Animals by the UCM. Degree in Small Animal Cardiology from the UCM
- ♦ Courses of laparoscopic and thoracoscopic surgery at the Minimally Invasive Center Jesús Usón. Accredited in functions B, C, D and E of Experimentation Animals, Community of Madrid
- ♦ Degree in Emotional Intelligence, UR Completed training in Gestalt psychology
- ♦ ICT Competencies Course for Teachers, UNED

## Professors

### Mr. Álvarez Ibañez, Jorge

- ♦ Head of the Neurology and Neurosurgery Service, San Fermin Veterinary Hospital
- ♦ Member of the Neurology and Neurosurgery Service, 4 de Octubre Veterinary Hospital
- ♦ Degree in Veterinary Medicine, Faculty of Veterinary Medicine of Lugo, University of Santiago de Compostela, 2010
- ♦ Specialization in Neurology, Neurosurgery and Neuroimaging, University of Luxembourg ESAVS Neurology, Bern, Switzerland; and Neurosurgery, Tuttlingen, Germany
- ♦ Completion of multiple specialization and accreditation courses in the areas of neurology, neurosurgery, traumatology and orthopedics, vascular and interventional surgery and general surgery
- ♦ Currently in the process of accreditation for the specialty of neurology and neurosurgery, AVEPA Member of Neurology and Orthopedics working groups, AVEPA
- ♦ Stays in several leading centers in neurology and neurosurgery

### Ms. De Andrés Gamazo, Paloma Jimena

- ♦ Director and Coordinator of Continuing Education courses, Universidad Complutense de Madrid, Spain, on Technical Assistance in Veterinary Clinic Part II and Part I, respectively
- ♦ Private teacher in several training schools for Zookeepers and Veterinary Technical Assistants
- ♦ PhD in Veterinary Sciences, UCM, December 2015
- ♦ Degree in Veterinary Medicine, UCM, 2004
- ♦ Master's Degree in Teacher Training for Compulsory High School Teachers, Vocational Training and Language Teaching, Universidad Nacional de Educación a Distancia, Spain, September 2012
- ♦ Graduated in Veterinary Medicine, 2005
- ♦ Assistant Physician Professor for courses in Histology, Special Pathological Anatomy and Clinical Rotation, UCM, since September 2019
- ♦ Associate Professor for courses in Special Pathological Anatomy and Clinical Rotation, UCM, from September 2016 to August 2019
- ♦ Associate Professor for courses in General Anatomic Pathology and Special Anatomic Pathology, University Alfonso X El Sabio, from January to July 2019
- ♦ Anatomopathological diagnosis of biopsies and necropsies, Diagnostic Service, Complutense Clinical Veterinary Hospital, since 2019
- ♦ Head of the Cytological Diagnostic and Clinical Oncology Service, Retiro Veterinary Hospital, from September 2017 to August 2019
- ♦ Clinical veterinarian in several leading veterinary hospitals (Ervet Urgencias Veterinarias, Hospital Veterinario Retiro and Surbatán, in Madrid; and Hospital Veterinario Archiduque Carlos, in Valencia) in the Emergency and Hospitalization Services from 2004 to 2012 and from 2017 to 2019
- ♦ Chief Veterinarian, Head of Conservation, Research and Education in the field of wildlife medicine and conservation at La Reserva del Castillo de las Guardas, Seville, from March 2012 to September 2017

**Ms. González de Ramos, Paloma**

- ♦ Director and Head of the Anesthesiology and Resuscitation Service, 4 de Octubre, Veterinary Hospital, Arteixo, A Coruña, January 2018 - present
- ♦ Degree in Veterinary Medicine, Alfonso X El Sabio University, Madrid, 2013
- ♦ Specialization in Anesthesiology, Resuscitation and Pain Therapeutics, Alfonso X el Sabio University, 2014-2017
- ♦ Multiple courses, congresses and specialization conferences in the area of veterinary anesthesiology
- ♦ Training stay in the Anesthesiology and Resuscitation Service, Cornell University Veterinary Hospital, New York, NY, USA, August-September 2017, under the tutelage of Dr. Luis Campoy (LV, MSc, PhD, Dip ACVAA)
- ♦ Training stay in the Anesthesiology and Resuscitation Service, University of Bern Veterinary Hospital, Switzerland, October 2016, under the tutelage of Dr. Olivier Levionnois (DVM, DrMedVet, Dip ECVAA, PhD, Habil. Senior Clinical instructor Research Assistant, Lecturer)
- ♦ Currently in the process of accreditation in the specialty of Anesthesia, AVEPA
- ♦ Member of the Spanish Society of Veterinary Anesthesia and Analgesia (SEAAV)
- ♦ Member of the AVEPA Anesthesia Working Group
- ♦ Resident of the Anesthesiology and Resuscitation Service, Alfonso X el Sabio University Veterinary Hospital, Madrid September 2014 - September 2017
- ♦ General Veterinarian, Arealonga Veterinary Clinic, A Coruña, September 2013 - September 2014

**Mr. González Villaceros, Álvaro**

- ♦ Member of the Anaesthesiology and Resuscitation Service, 4 de Octubre Veterinary Hospital
- ♦ Degree in Veterinary Medicine, University of León, 2010
- ♦ Master's Degree in Anesthesiology, Pharmacology and Therapeutics in Veterinary Medicine, CIU, 2016
- ♦ Diploma in Small Animal Clinical Practice, UAB, 2017
- ♦ Diploma in Small Animal Ophthalmology, UCM, 2019
- ♦ General and Emergency Veterinarian in Small Animal Clinics, 2010 - 2016
- ♦ Head of the Anesthesia Service, Specialist Center, since 2016 Deputy of the Ophthalmology Team in the same center
- ♦ Speaker at the 2013 Northwest Veterinary Congress presenting Canine Leishmaniasis in the Region of Valdeorras: Seroprevalence and Clinical Characteristics in collaboration with Dr. Adolfo García Emilió and Dr. Ana Carvajal Urueña, University of León

**Ms. Montoya Landa, Blanca**

- ♦ Veterinarian in the Internal Medicine, Hospitalization and Emergencies Area, San Antón de Colmenar Viejo Veterinary Hospital
- ♦ Collaboration in the Oncology Service, Complutense University of Madrid Veterinary Hospital
- ♦ Degree in Veterinary Medicine, Complutense University Madrid
- ♦ Training in oncology and attended multiple seminars and congresses



**Ms. Hernández Bonilla, Milagros**

- ♦ Veterinarian in charge of the Internal Medicine and Oncology Service, La Salle Veterinary Center, 2017 - Present
- ♦ Graduated in Veterinary Medicine, 2011 University of León
- ♦ Master's Degree in Veterinary Research and Food Science and Technology University of León, 2011 - 2012
- ♦ General Practitioner Certificate Program in Oncology 2017 - 2018 Improve International, Madrid
- ♦ In the process of accreditation in Veterinary Oncology, AVEPA (GEVONC)
- ♦ Member of AVEPA (Association of Veterinary from Specialists in Small Animals)
- ♦ Member of GEVONC (Group of specialists in Veterinary Oncology)
- ♦ Member of the Official College of Veterinarians Asturias (331930)
- ♦ Royal College of Veterinary Surgeons N° 7369353
- ♦ 2012 - 2014 internship in Emergency and Intensive Care, Veterinary Hospital of the University of Murcia
- ♦ 2014-2017 Veterinarian in different private centers in Asturias. Spain

**Ms. Migoya, Veronica**

- ♦ Veterinarian at Donostivet, currently Donostia Veterinary Hospital, Gipuzkoa
- ♦ Veterinarian at Lur Gorri Veterinary Clinic, Navarra, Spain
- ♦ Degree in Veterinary Medicine, University of León (ULE)
- ♦ Master's Degree in Veterinary Clinical Oncology: AEVA Veterinaria Proprietary title recognized by the European University Miguel de Cervantes (UEMC)
- ♦ Accreditation Course in Direct Radiodiagnostic Installations Approved by the Nuclear Safety Council (CSN)

**Ms. Lorenzo Toja, María**

- ♦ Veterinarian in the Diagnostic Imaging Service, 4 de Octubre Veterinary Hospital
- ♦ Degree in Veterinary Medicine, University of Santiago de Compostela, 2007
- ♦ Pursuing Avepa's Accreditation in Diagnostic Imaging
- ♦ GpCert: Ultrasound & Echocardiography, 2017
- ♦ Official Master's Degree in Basic and Applied Research in Veterinary Sciences
- ♦ TIT: Mouse Brain Relaxation Times in 11.7 T MRI 2009/2010
- ♦ Clinical Veterinarian, Can Cat Veterinary Clinic, Santiago de Compostela, 2013/2018 (Internal medicine, feline medicine, ultrasound and echocardiography)
- ♦ Veterinarian in the Continuous Care Service, Rof Codina Veterinary University Hospital 2012/2013
- ♦ MRI Head Veterinarian, USC Magnetic Resonance Unit 2010/2012
- ♦ Small Animal Boarding, Rof Codina Veterinary University Hospital 2008/2009
- ♦ Student Intern, Veterinary Hospital

**Dr. Gómez Poveda, Bárbara**

- ♦ Veterinary Director at Barvet-Veterinaria a Domicilio, Madrid
- ♦ General Veterinarian at Parque Grande Veterinary Clinic, Madrid
- ♦ Emergency and Hospitalization Veterinarian, Las Rozas Emergency Veterinary Center, Madrid
- ♦ Emergency and Hospitalization Veterinarian, Parla Sur Veterinary Hospital, Madrid
- ♦ Degree in Veterinary Medicine, Complutense University Madrid
- ♦ Postgraduate Course in Small Animal Surgery (GPCert SAS), Improve International
- ♦ Specialization in Diagnostic Imaging in Small Animals, Autonomous University of Barcelona
- ♦ Specialization in Medicine and Diagnostic Imaging in Exotic Animals, Autonomous University of Barcelona

# 05

# Structure and Content

The contents for this Master's Degree have been developed by the different experts on the program, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

A complete and well-structured program will take you to the highest standards of quality and success.





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*A complete program that will take you through the exhaustive knowledge necessary to intervene as a specialist in theoretical and practical aspects of Veterinary Oncology in Small Animals”*

## Module 1. Introduction to Oncology. Etiology, Biology and Epidemiology of Cancer. Anatomopathologic Diagnosis

- 1.1. Etiology of Cancer
  - 1.1.1. Genetic Factors
  - 1.1.2. Chemical, Physical and Hormonal Factors
  - 1.1.3. Viral Origin
- 1.2. Biology of Cancer: Metastasis
  - 1.2.1. Normal Cellular Cycle
  - 1.2.2. Tumor Cells
  - 1.2.3. Metastasis
- 1.3. Epidemiology and Evidence-Based Medicine: Translational Medicine
  - 1.3.1. Epidemiological Terms
  - 1.3.2. Factors Linked to Cancer
  - 1.3.3. Translational Medicine
- 1.4. Approach to Cancer Patients (I)
  - 1.4.1. Cancer Patient Overview
  - 1.4.2. Initial Interview
  - 1.4.3. Physical Exploration
- 1.5. Approach to Cancer Patients (II)
  - 1.5.1. Diagnostic Techniques
  - 1.5.2. Therapeutic Approach
  - 1.5.3. Concomitant Pathologies
- 1.6. Cytology (I)
  - 1.6.1. Cytological Sampling Technique
  - 1.6.2. Most Frequent Stains in Cytological Diagnosis
  - 1.6.3. Principle of Cytological Interpretation
- 1.7. Cytology (II)
  - 1.7.1. Delivery Protocol for Cytological Samples
  - 1.7.2. Epithelial Tumors
  - 1.7.3. Mesenchymal Tumors

- 1.8. Cytology (III)
  - 1.8.1. Round Cell Tumours
  - 1.8.2. Metastatic Tumors and Cavity-Exfoliating Tumors
  - 1.8.3. Interpreting Cytology Reports
- 1.9. Pathological Anatomy (I): Biopsy and Specimen Referral
  - 1.9.1. Biopsy Techniques
  - 1.9.2. How to Refer a Specimen Properly?
  - 1.9.3. Interpreting Histopathological Reports
- 1.10. Pathological Anatomy (II): Interpreting Histological Reports
  - 1.10.1. Immunohistochemistry Techniques and Molecular Biology
  - 1.10.2. Utility and Advantages in Oncology Management
  - 1.10.3. Tumor Markers

## Module 2. Cancer Diagnosis. Imaging and Molecular Diagnostic Techniques. Chemotherapy, Electrochemotherapy and Molecular/Targeted Therapy

- 2.1. Diagnostic Imaging in Cancer Patients (I)
  - 2.1.1. Introduction to Imaging Techniques in Oncology
    - 2.1.1.1. Radiology
    - 2.1.1.2. Ultrasound
    - 2.1.1.3. Computerized Tomography
    - 2.1.1.4. Magnetic Resonance
- 2.2. Diagnostic Imaging in Cancer Patients (II)
  - 2.2.1. Diagnostic Imaging Techniques in Digestive Tract Neoplasms
  - 2.2.2. Imaging Techniques in Respiratory System Neoplasms
  - 2.2.3. Diagnostic Imaging Techniques in Urinary System Neoplasms
  - 2.2.4. Diagnostic Imaging Techniques in Hepatopoietic Neoplasms
- 2.3. Diagnostic Imaging in Cancer Patients (III)
  - 2.3.1. Diagnostic Imaging Techniques in Cutaneous Neoplasms
  - 2.3.2. Diagnostic Imaging Techniques in Nervous System Neoplasms
  - 2.3.3. Diagnostic Imaging Techniques in Musculoskeletal Neoplasms
- 2.4. Molecular Diagnoses
  - 2.4.1. Molecular Diagnostic Techniques
  - 2.4.2. Quantification and Gene Expression
  - 2.4.3. Personalized Therapy in Cancer

- 2.5. Principles of Surgical Oncology (I)
  - 2.5.1. Pre-operative Considerations
  - 2.5.2. Preoperative Approach
  - 2.5.3. Biopsies and Sample Collecting
- 2.6. Principles of Surgical Oncology (II)
  - 2.6.1. Surgical Considerations
  - 2.6.2. Definition of Surgical Margins
  - 2.6.3. Cytoreductive and Palliative Surgeries
  - 2.6.4. Post-operative Considerations
- 2.7. Chemotherapy (I)
  - 2.7.1. What Is Chemotherapy?
  - 2.7.2. Dosage
  - 2.7.3. Species Characteristics
- 2.8. Chemotherapy (II)
  - 2.8.1. Antitumor Antibiotics
  - 2.8.2. Alkylating Agents
  - 2.8.3. Usage Inhibitors
- 2.9. Electrochemotherapy
  - 2.9.1. Basis of Electrochemotherapy
  - 2.9.2. Neuroeducation Applications
  - 2.9.3. New Horizons
- 2.10. Molecular/Targeted Therapy
  - 2.10.1. Genetic Therapy
  - 2.10.2. Tyrosine Kinase Inhibitors
  - 2.10.3. Angiogenic Therapy
  - 2.10.4. Metronomic Therapy
  - 2.10.5. Emerging Therapeutic Agents

### Module 3. Cancer Patient Treatment. Radiotherapy, Immunotherapy, Interventional Oncology. Complications in Oncological Therapy. Palliative Care

- 3.1. Radiotherapy (I)
  - 3.1.1. Principles of Biological Tissue Radiation
  - 3.1.2. Stereotactic Radiation
  - 3.1.3. Effective Biological Dose
- 3.2. Radiotherapy (II)
  - 3.2.1. Palliative Radiotherapy.
  - 3.2.2. Tumors Frequently Treated with Radiotherapy
- 3.3. Immunotherapy
  - 3.3.1. Immune System Control
  - 3.3.2. Immune System Control Therapies
  - 3.3.3. Antibody Therapy
  - 3.3.4. Future of Immunotherapy
- 3.4. Interventional Oncology
  - 3.4.1. Material
  - 3.4.2. Vascular Interventions
  - 3.4.3. Non-Vascular Interventions
- 3.5. Complications in Oncological Therapy
  - 3.5.1. Hematological Side Effects
  - 3.5.2. Digestive Side Effects
  - 3.5.3. Other Side Effects
- 3.6. Paraneoplastic Syndromes
  - 3.6.1. What Is a Paraneoplastic Syndrome?
  - 3.6.2. Hypercalcemia
  - 3.6.3. Others
- 3.7. Oncologic Emergencies
  - 3.7.1. What Is an Oncologic Emergency?
  - 3.7.2. Most Frequent Oncologic Emergencies
  - 3.7.3. Treating Oncologic Emergencies
- 3.8. Communication with Owners

- 3.8.1. How to Deliver the News
- 3.8.2. How to Face the End
- 3.8.3. How to Prepare Emotionally
- 3.9. Palliative Care: Pain Treatment in Oncologic Patients
  - 3.9.1. Mechanisms that Generate Pain in Cancer Patients
  - 3.9.2. Pain Assessment in Cancer Patients
  - 3.9.3. Pain Treatment in Cancer Patients
- 3.10. Palliative Care: Nutritional Support for Cancer Patients
  - 3.10.1. Metabolism in Cancer
  - 3.10.2. Nutritional Assessment of Cancer Patients
  - 3.10.3. Implementing Nutrition Plans for Cancer Patients

## Module 4. Cutaneous and Subcutaneous Tumors

- 4.1. Skin Tumors (I)
  - 4.1.1. Incidence
  - 4.1.2. Etiology
  - 4.1.3. Diagnosis
- 4.2. Skin Tumors (II)
  - 4.2.1. Treatment
  - 4.2.2. Prognosis
  - 4.2.3. Considerations
- 4.3. Canine Mastocytoma (I)
  - 4.3.1. Treatment
  - 4.3.2. Prognosis
  - 4.3.3. Considerations
- 4.4. Canine Mastocytoma (II)
  - 4.4.1. Diagnosis
  - 4.4.2. Staging
  - 4.4.3. Prognostic Factors
- 4.5. Canine Mastocytoma (III)
  - 4.5.1. Surgery
  - 4.5.2. Radiotherapy
  - 4.5.3. Chemotherapy
- 4.6. Canine Mastocytoma (IV)
  - 4.6.1. Prognosis
  - 4.6.2. Survival
  - 4.6.3. New Challenges
- 4.7. Feline Mastocytoma (I)
  - 4.7.1. Differential Considerations with Canine Mastocytoma
  - 4.7.2. Diagnosis
  - 4.7.3. Treatment
- 4.8. Sequence Tagged Site (I)
  - 4.8.1. Epidemiology
  - 4.8.2. Incidence
  - 4.8.3. Types of Soft Tissue Sarcomas
- 4.9. Sequence Tagged Site (II)
  - 4.9.1. Soft Tissue Sarcoma Diagnosis
  - 4.9.2. Complementary Tests
  - 4.9.3. Staging
- 4.10. Sequence Tagged Site (III)
  - 4.10.1. Treatment of Soft Tissues Sarcoma
  - 4.10.2. Medical Treatment of Soft Tissue Sarcoma
  - 4.10.3. Prognosis

**Module 5. Injection Site Sarcomas. Melanoma. Respiratory Tumors**

- 5.1. Feline Injection Site Sarcoma
  - 5.1.1. Prevalence and Etiology
  - 5.1.2. Diagnosis
  - 5.1.3. Treatment
- 5.2. Melanoma (I)
  - 5.2.1. Etiology
  - 5.2.2. Diagnosis
  - 5.2.3. Staging.
- 5.3. Melanoma (II)
  - 5.3.1. Surgical Management
  - 5.3.2. Medical Treatment
  - 5.3.3. Special considerations
- 5.4. Skin Surgery (I)
  - 5.4.1. Anatomy, Vascularization and Tension
  - 5.4.2. Pathophysiology of Healing
  - 5.4.3. Injuries: Types and Management
- 5.5. Skin Surgery (II)
  - 5.5.1. Plasties and Subdermal Plexus Flaps
  - 5.5.2. Pedicle and Muscle Flaps
  - 5.5.3. Grafts
- 5.6. Respiratory Tumors (I): Nasal Plane
  - 5.6.1. Incidence and Risk Factors
  - 5.6.2. Diagnosis
  - 5.6.3. Treatment
- 5.7. Respiratory Tumors (II): Nasal Cavity
  - 5.7.1. Incidence and Risk Factors
  - 5.7.2. Diagnosis
  - 5.7.3. Treatment

- 5.8. Respiratory Tumors (III): Larynx and Trachea
  - 5.8.1. Incidence and Risk Factors
  - 5.8.2. Diagnosis
  - 5.8.3. Treatment
- 5.9. Respiratory Tumors (IV): Pulmonary
  - 5.9.1. Incidence and Risk Factors
  - 5.9.2. Diagnosis
  - 5.9.3. Treatment
- 5.10. Respiratory Surgery
  - 5.10.1. Nasal Plane Surgery
  - 5.10.2. Nasal Cavity Surgery
  - 5.10.3. Laryngeal and Tracheal Surgery
  - 5.10.4. Pulmonary Lobectomy

**Module 6. Digestive Tract Tumors. Mesothelioma**

- 6.1. Digestive Tract Tumors (I): Oral Cavity I
  - 6.1.1. Symptoms
  - 6.1.2. Diagnosis
  - 6.1.3. Treatment
- 6.2. Digestive Tract Tumors (II): Oral Cavity II
  - 6.2.1. Symptoms
  - 6.2.2. Diagnosis
  - 6.2.3. Treatment
- 6.3. Digestive Tract Tumors (III): Esophagus, Stomach, Exocrine Pancreas
  - 6.3.1. Symptoms
  - 6.3.2. Diagnosis
  - 6.3.3. Treatment
- 6.4. Digestive Tract Tumors (IV): Intestine
  - 6.4.1. Symptoms
  - 6.4.2. Diagnosis
  - 6.4.3. Treatment

- 6.5. Digestive Tract Tumors (V): Nasal Sac Tumors
  - 6.5.1. Symptoms
  - 6.5.2. Diagnosis
  - 6.5.3. Treatment
- 6.6. Digestive Tract Tumors (VI): Liver Tumors.
  - 6.6.1. Prevalence and Etiology
  - 6.6.2. Diagnosis
  - 6.6.3. Treatment
- 6.7. Digestive Surgery (I)
  - 6.7.1. Anatomy
  - 6.7.2. Principles of Digestive Surgery
- 6.8. Digestive Surgery (II)
  - 6.8.1. Gastric Surgery
  - 6.8.2. Intestinal Surgery
- 6.9. Digestive Surgery (III)
  - 6.9.1. Liver Surgery
- 6.10. Mesothelioma
  - 6.10.1. Diagnosis
  - 6.10.2. Treatment

## Module 7. Endocrine System Tumors. Breast Tumors. Ophthalmologic Tumors

- 7.1. Endocrine System Tumors (I): Adrenal Glands
  - 7.1.1. Epidemiology
  - 7.1.2. Diagnosis
  - 7.1.3. Treatment
- 7.2. Endocrine System Tumors (II): Thyroid
  - 7.2.1. Epidemiology
  - 7.2.2. Diagnosis
  - 7.2.3. Treatment
- 7.3. Endocrine System Tumors (III): Insulinoma
  - 7.3.1. Epidemiology
  - 7.3.2. Diagnosis
  - 7.3.3. Treatment

- 7.4. Endocrine System Tumors (IV): Pituitary Tumors
  - 7.4.1. Epidemiology
  - 7.4.2. Diagnosis
  - 7.4.3. Treatment
- 7.5. Endocrine Surgery
  - 7.5.1. Adrenal Surgery
  - 7.5.2. Thyroid Surgery
  - 7.5.3. Pancreas Surgery
- 7.6. Breast Tumors: Canines (I)
  - 7.6.1. Epidemiology
  - 7.6.2. Risk Factors
  - 7.6.3. Diagnosis
- 7.7. Breast Tumors: Canines (II)
  - 7.7.1. Surgical Management
  - 7.7.2. Medical Treatment
  - 7.7.3. Prognosis
- 7.8. Breast Tumors: Felines (III)
  - 7.8.1. Epidemiology
  - 7.8.2. Diagnosis
  - 7.8.3. Treatment
- 7.9. Ophthalmologic Tract Tumors (I)
  - 7.9.1. Epidemiology
  - 7.9.2. Clinical diagnosis
  - 7.9.3. Complementary Tests
- 7.10. Ophthalmologic Tract Tumors (II)
  - 7.10.1. Surgical Management
  - 7.10.2. Medical Treatment





## Module 8. Genitourinary Tumors. Nervous System Tumours

- 8.1. Female Reproductive System Tumors
  - 8.1.1. Epidemiology
  - 8.1.2. Diagnosis
  - 8.1.3. Treatment
- 8.2. Male Reproductive System Tumors
  - 8.2.1. Epidemiology
  - 8.2.2. Diagnosis
  - 8.2.3. Treatment
- 8.3. Urinary System Tumors (I)
  - 8.3.1. Renal Tumors
  - 8.3.2. Diagnosis
  - 8.3.3. Treatment
- 8.4. Urinary System Tumors (II)
  - 8.4.1. Urinary Bladder Tumors
  - 8.4.2. Diagnosis
  - 8.4.3. Treatment
- 8.5. Genitourinary Surgery (I)
  - 8.5.1. General Principles of Reproductive System Surgery
  - 8.5.2. Surgical Techniques in the Male Genital Tract
  - 8.5.3. Surgical Techniques in the Female Genital Tract
- 8.6. Genitourinary Surgery (II)
  - 8.6.1. Kidney Surgical Techniques
  - 8.6.2. Ureter Surgical Techniques
  - 8.6.3. Bladder Surgical Techniques
  - 8.6.4. Urethra Surgical Techniques
- 8.7. Transmissible Venereal Tumor
  - 8.7.1. Incidence and Pathology
  - 8.7.2. Diagnosis
  - 8.7.3. Treatment

- 8.8. Nervous System Tumors (I)
  - 8.8.1. Brain Tumors
  - 8.8.2. Diagnosis
  - 8.8.3. Treatment
- 8.9. Nervous System Tumors (II)
  - 8.9.1. Spinal Cord Tumors
  - 8.9.2. Diagnosis
  - 8.9.3. Treatment
- 8.10. Nervous System Surgery
  - 8.10.1. Surgical Techniques for the Approach to Intracranial Tumors
  - 8.10.2. Surgical Techniques for the Approach to Spinal Cord Tumors
  - 8.10.3. Frequent Complications in Nervous System Surgery

## Module 9. Hematopoietic Tumors

- 9.1. Hematopoietic System Tumors (I): Canine Lymphoma (I)
  - 9.1.1. Etiology
  - 9.1.2. Classification and Pathology
  - 9.1.3. Clinical Signs
  - 9.1.4. Diagnosis
  - 9.1.5. Clinical Status
- 9.2. Hematopoietic System Tumors (II): Canine Lymphoma (II)
  - 9.2.1. Multicentric Lymphoma Treatment
    - 9.2.1.1. Re-Induction and Salvage Chemotherapy
    - 9.2.1.2. Strategies to Improve Treatment Effectiveness
    - 9.2.1.3. Immunotherapy and Other Treatments
- 9.3. Hematopoietic System Tumors (III): Canine Lymphoma (III)
  - 9.3.1. Extranodal Lymphoma Treatment
  - 9.3.2. Canine Lymphoma Prognosis
- 9.4. Hematopoietic System Tumors (IV): Canine Lymphoma (IV)
  - 9.4.1. Lymphocytic Leukemia
  - 9.4.2. Incidence, Etiology, Pathology and Classification
  - 9.4.3. Clinical Signs and Diagnosis
  - 9.4.4. Treatment
  - 9.4.5. Prognosis
- 9.5. Hematopoietic System Tumors (V): Feline Lymphoma (I)
  - 9.5.1. Incidence, Etiology and Pathology in Feline Lymphoma
  - 9.5.2. Gastrointestinal / Dietary Lymphoma
- 9.6. Hematopoietic System Tumors (VI): Feline Lymphoma (II)
  - 9.6.1. Peripheral Lymph Node Lymphoma
    - 9.6.1.1. Mediastinal Lymphoma
  - 9.6.2. Extranodal Lymphoma
    - 9.6.2.1. Nasal Lymphoma
    - 9.6.2.2. Renal Lymphoma
    - 9.6.2.3. Central Nervous System Lymphoma
    - 9.6.2.4. Cutaneous Lymphoma
    - 9.6.2.5. Subcutaneous Lymphoma
    - 9.6.2.6. Laryngeal Lymphoma
    - 9.6.2.7. Ocular Lymphoma
    - 9.6.2.8. Felines Lymphoma Prognosis
- 9.7. Hematopoietic System Tumors (VII): Feline Lymphoma (III)
  - 9.7.1. Feline Leukemia, Myeloproliferative Disorders and Myelodysplasia
- 9.8. Hematopoietic System Tumors (VIII)
  - 9.8.1. Canine Acute Myeloid Leukemia, Myeloproliferative Neoplasms, and Myelodysplasia
    - 9.8.1.1. Incidence, Risk Factors
    - 9.8.1.2. Pathology
    - 9.8.1.3. Acute Myeloid Leukemia
  - 9.8.2. Myeloproliferative Neoplasms
    - 9.8.2.1. Polycythemia Vera
    - 9.8.2.2. Chronic Myelogenous Leukemia
      - 9.8.2.2.1. Eosinophilic and Basophilic Leukemia
      - 9.8.2.2.2. Essential Thrombocythemia/Primary Thrombocytosis
- 9.9. Other Bone Marrow Disorders
  - 9.9.1. Myelofibrosis
  - 9.9.2. Myelodysplastic Syndromes

- 9.10. Hematopoietic System Tumors (IX): Plasma Cell Tumors
  - 9.10.1. Multiple Myeloma
  - 9.10.2. Solitary and Extramedullary Plasmacytic Tumors
  - 9.10.3. Canine Histiocytic Disease: Feline Histiocytic Disease
  - 9.10.4. Canine Histiocytic Disease
    - 9.10.4.1. Cutaneous Histiocytoma
    - 9.10.4.2. Cutaneous Langerhans Cell Histiocytosis
    - 9.10.4.3. Reactive Histiocytosis
  - 9.10.5. Histiocytic Sarcoma
  - 9.10.6. Hemophagocytic Histiocytic Sarcoma
  - 9.10.7. Feline Histiocytic Disease
  - 9.10.8. Feline Histiocytic Sarcoma
  - 9.10.9. Progressive Feline Histiocytosis
  - 9.10.10. Pulmonary Langerhans Cell Histiocytosis

## Module 10. Hemangiosarcoma. Thymoma. Cardiac Tumors. Musculoskeletal Tumors

- 10.1. Hemangiosarcoma (I)
  - 10.1.1. Incidence and Risk Factors
  - 10.1.2. Etiology
  - 10.1.3. Diagnosis
- 10.2. Hemangiosarcoma (II)
  - 10.2.1. Treatment
  - 10.2.2. Prognosis
- 10.3. Spleen Surgery
  - 10.3.1. Spleen Surgery Techniques
- 10.4. Thymoma
  - 10.4.1. Diagnosis
  - 10.4.2. Treatment

- 10.5. Cardiac Tumors
  - 10.5.1. Diagnosis
  - 10.5.2. Treatment
- 10.6. Thoracic Surgery (I)
  - 10.6.1. Anatomy
  - 10.6.2. Particularities of Thoracic Surgery
  - 10.6.3. Thoracic Cavity Approaches
- 10.7. Thoracic Surgery (II)
  - 10.7.1. Pericardiocentesis
  - 10.7.2. Pericardiectomy
- 10.8. Musculoskeletal Tumors (I)
  - 10.8.1. Osteosarcoma
  - 10.8.2. Incidence and Risk Factors
  - 10.8.3. Etiology
  - 10.8.4. Diagnosis
  - 10.8.5. Treatment
- 10.9. Musculoskeletal Tumors (II)
  - 10.9.1. Other Bone Tumors
  - 10.9.2. Feline Bone Tumors
- 10.10. Musculoskeletal Surgery
  - 10.10.1. Biopsy Technique
  - 10.10.2. Surgical Technique for Amputations



*Make the most of this opportunity to learn about the latest advances in this area in order to apply it to your daily practice"*

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.

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

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

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



## Relearning Methodology

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

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

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





At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology more than 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where the students have a high socio-economic profile and an average age of 43.5 years.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Latest Techniques and Procedures on Video

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



### Interactive Summaries

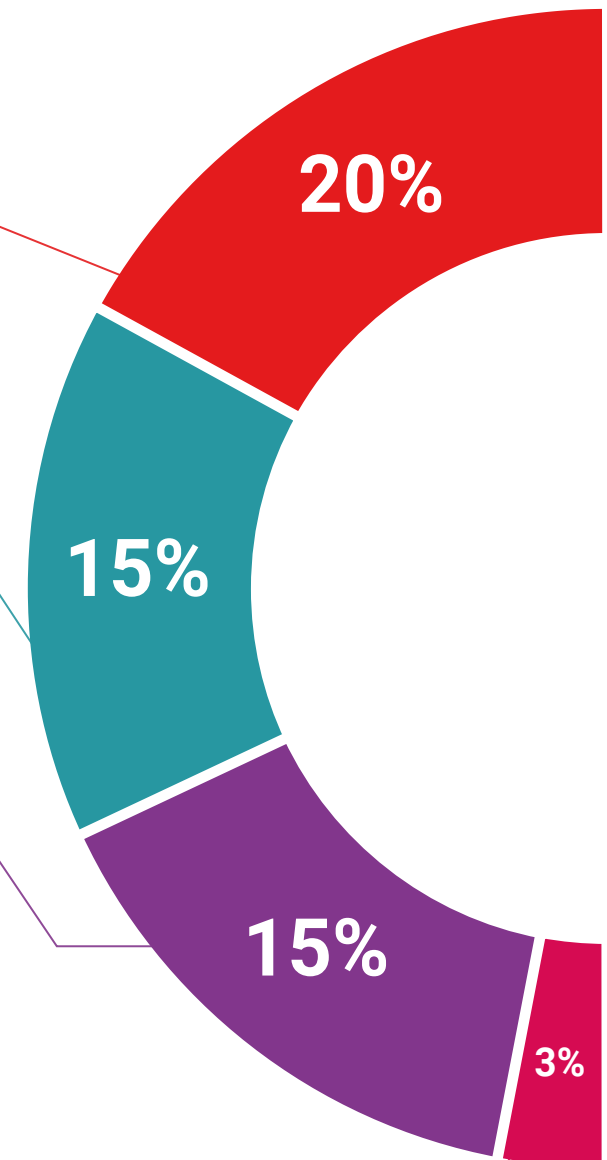
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

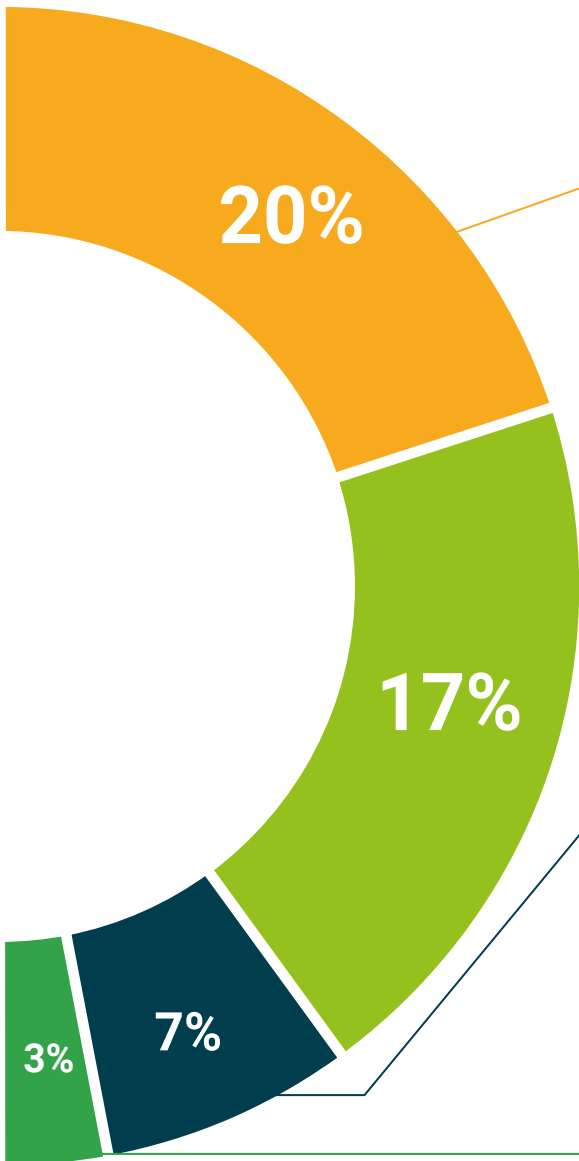
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

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



#### Quick Action Guides

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



# 07 Certificate

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



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*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 **Master's Degree diploma in Veterinary Oncology 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: **Master's Degree in Veterinary Oncology in Small Animals**

Modality: **online**

Duration: **12 months**

Accreditation: **60 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.



**Master's Degree**  
Veterinary Oncology  
in Small Animals

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Master's Degree

Veterinary Oncology  
in Small Animals

