

# Postgraduate Certificate

Hemangiosarcoma in Small Animals.  
Thymoma, Cardiac and Musculoskeletal  
Tumors





## Postgraduate Certificate

### Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors

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

Website: [www.techtute.com/us/veterinary-medicine/postgraduate-certificate/hemangiosarcoma-small-animals-thymoma-cardiac-musculoskeletal-tumors](http://www.techtute.com/us/veterinary-medicine/postgraduate-certificate/hemangiosarcoma-small-animals-thymoma-cardiac-musculoskeletal-tumors)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

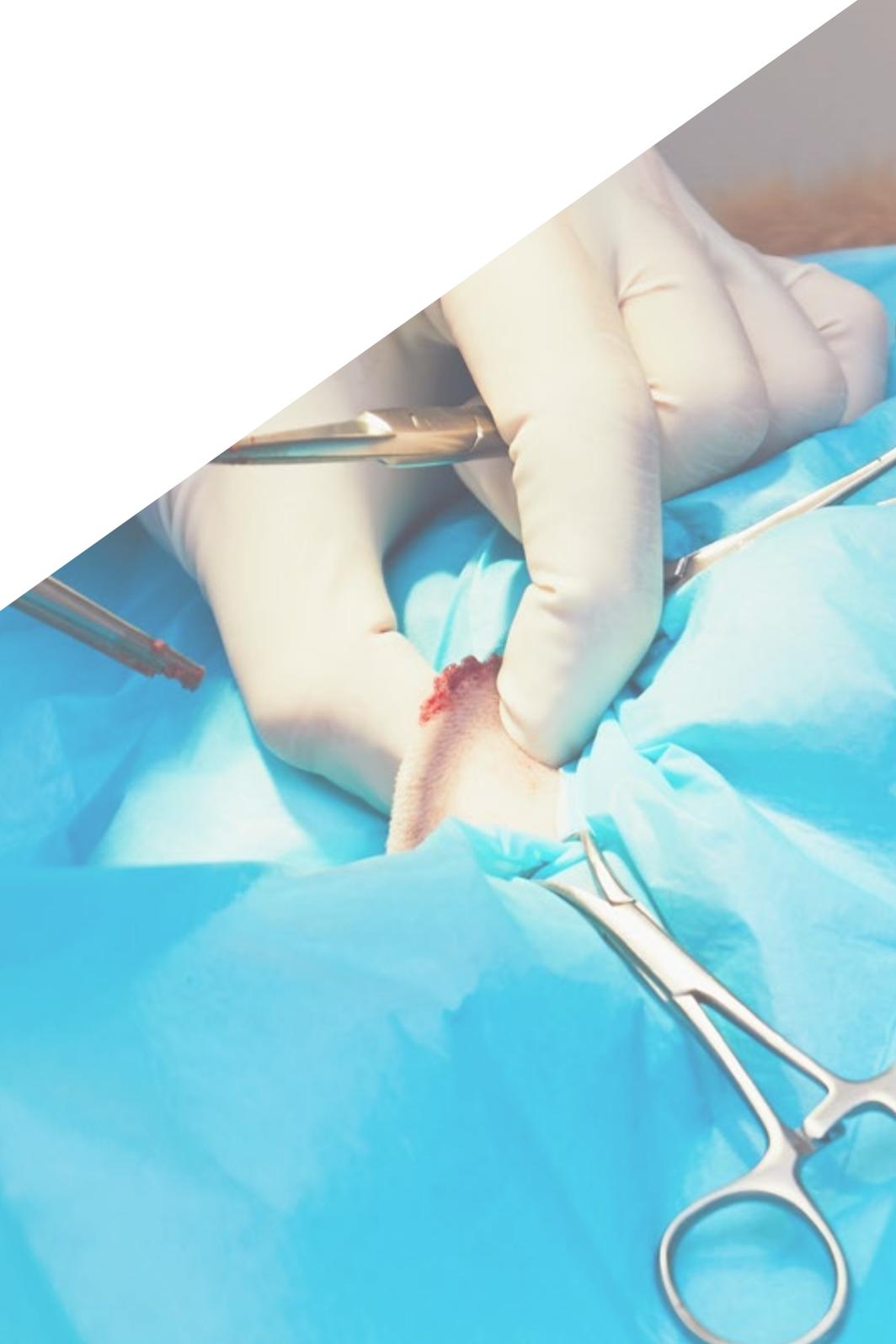
*p. 28*

# 01

# Introduction

In this high-level program, cardiac tumors and musculoskeletal tumors, as well as thymoma and hemangiosarcoma will be covered. Throughout the course, the different surgical techniques used to approach these types of tumors will be analyzed by professionals in the field.

A unique opportunity to specialize in a promising, high-level sector.





“

*Become one of the most demanded professionals today: Train in Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors with this comprehensive Postgraduate Certificate”*

Hemangiosarcoma is a tumor that mainly affects dogs and represents about 50% of splenic neoplasms, although it has been described in other locations, as well. The diagnostic and therapeutic protocol in hemangiosarcoma will be developed, with special emphasis on splenic hemangiosarcoma. Surgical treatment using the splenectomy technique on this type of tumors will be defined.

Thymoma is an uncommon type of mediastinal tumor in dogs and cats, which in many occasions represents a diagnostic challenge. The diagnostic basis and the different therapeutic alternatives available will be established during the program.

Cardiac tumors are infrequent in dogs and cats, the most common being hemangiosarcoma and aortic body tumors. The diagnostic protocol and the different therapies aimed at treating secondary complications resulting from this type of tumors will be addressed in detail.

In relation to musculoskeletal tumors, the most frequent is osteosarcoma. This program will detail the most relevant diagnostic aspects and will analyze the classical and most novel therapeutic strategies used on this type of tumors, with special emphasis on the study of osteosarcoma. The techniques involved in the surgical treatment of musculoskeletal tumors will be described, as well.

As it is an online Postgraduate Certificate course, students are not restricted by set timetables, nor do they need to physically move to another 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 **Postgraduate Certificate in Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors** 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



*Take the opportunity to learn about the latest advances in this area in order to apply it to your daily practice”*

“

*Get a complete and suitable qualification in Hemangiosarcoma in Small Animals with this highly effective educational program and open new paths for your professional progress”*

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 methodology used in the design of this Postgraduate Certificate in Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors. 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.

*With a methodological design based on proven teaching techniques, this Postgraduate Certificate will take you through different teaching approaches to allow you to learn in a dynamic and effective way.*



# 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, students will be able to achieve with a highly intensive and precise course.



“

*If your objective is to broaden your skills set to include new paths of success and development: this is the program for you: a training that aspires to excellence"*



## General Objectives

---

- » 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



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





## Specific Objectives

---

- » 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



03

# Course Management

Within the concept of total quality of our program, we are proud to put at your disposal 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.





“

*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

### Dr. 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

# 04

## Structure and Content

The contents included in this Postgraduate Certificate have been developed by the different experts on the program, with a clear purpose: to ensure 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.





“

*A complete educational program that will take you through the exhaustive training necessary to intervene as a specialist in the theoretical and practical aspects of Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors”*

**Module 1.** Hemangiosarcoma. Thymoma. Cardiac Tumors. Musculoskeletal Tumors

- 1.1. Hemangiosarcoma (I)
  - 1.1.1. Incidence and Risk Factors
  - 1.1.2. Etiology
  - 1.1.3. Diagnosis
- 1.2. Hemangiosarcoma (II)
  - 1.2.1. Treatment
  - 1.2.2. Prognosis
- 1.3. Spleen Surgery
  - 1.3.1. Spleen Surgery Techniques
- 1.4. Thymoma
  - 1.4.1. Diagnosis
  - 1.4.2. Treatment
- 1.5. Cardiac Tumors
  - 1.5.1. Diagnosis
  - 1.5.2. Treatment
- 1.6. Thoracic Surgery (I)
  - 1.6.1. Anatomy
  - 1.6.2. Particularities of Thoracic Surgery
  - 1.6.3. Thoracic Cavity Approaches
- 1.7. Thoracic Surgery (II)
  - 1.7.1. Pericardiocentesis
  - 1.7.2. Pericardiectomy
- 1.8. Musculoskeletal Tumors (I)
  - 1.8.1. Osteosarcoma
  - 1.8.2. Incidence and Risk Factors
  - 1.8.3. Etiology
  - 1.8.4. Diagnosis
  - 1.8.5. Treatment
- 1.9. Musculoskeletal Tumors (II)
  - 1.9.1. Other Bone Tumors
  - 1.9.2. Feline Bone Tumors
- 1.10. Musculoskeletal Surgery
  - 1.10.1. Biopsy Technique
  - 1.10.2. Surgical Technique for Amputations



*This program will allow you to advance in your career comfortably"*



# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





“

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

“

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

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

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



## Relearning Methodology

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

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



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

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

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

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

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

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



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



#### Study Material

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

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



#### Latest Techniques and Procedures on Video

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



#### Interactive Summaries

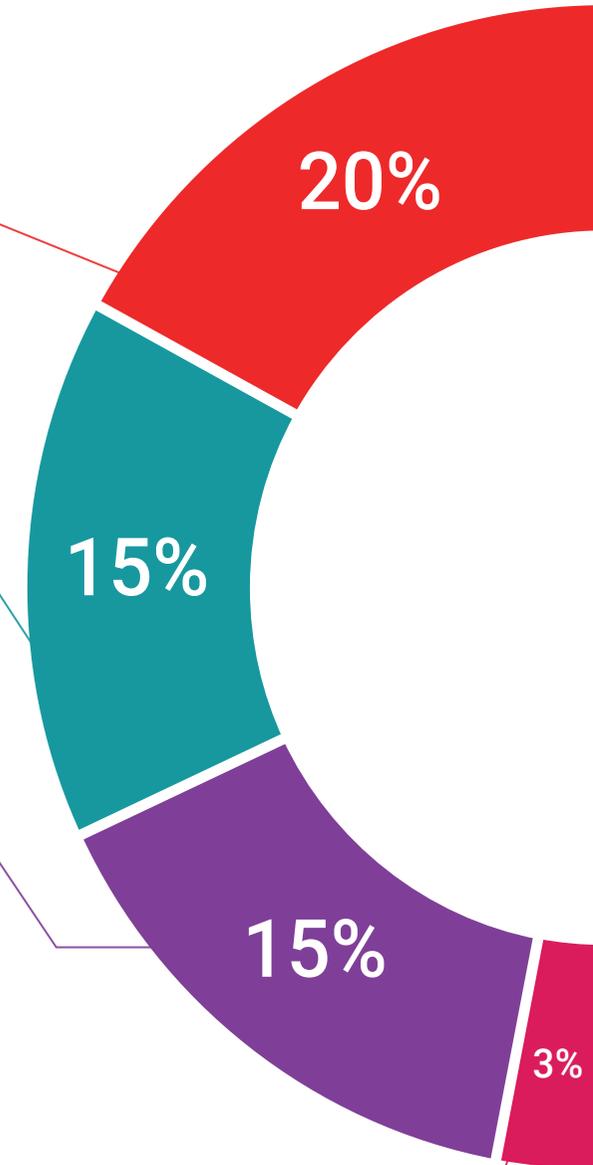
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

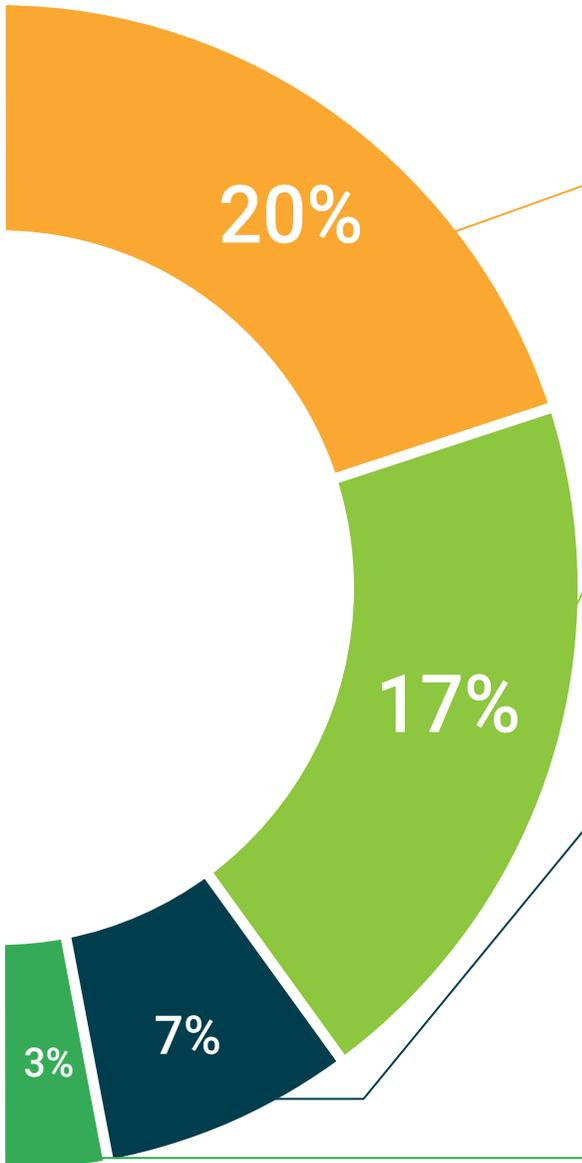
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

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





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

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



#### Testing & Retesting

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



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

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



# 06 Certificate

This Postgraduate Certificate in Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

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

This program will allow you to obtain your **Postgraduate Certificate in Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in Hemangiosarcoma in Small Animals. Thymoma, Cardiac and Musculoskeletal Tumors**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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.



**Postgraduate Certificate**  
Hemangiosarcoma in Small  
Animals Thymoma, Cardiac  
and Musculoskeletal  
Tumors

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

# Postgraduate Certificate

Hemangiosarcoma in Small Animals.  
Thymoma, Cardiac and Musculoskeletal  
Tumors

