

# Postgraduate Certificate

Clinical Oncology in Small Animals.  
Anatomopathologic Diagnosis





## Postgraduate Certificate Clinical Oncology in Small Animals. Anatomopathologic Diagnosis

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

Website: [www.techtute.com/us/veterinary-medicine/postgraduate-certificate/clinical-oncology-small-animals-anatomopathologic-diagnosis](http://www.techtute.com/us/veterinary-medicine/postgraduate-certificate/clinical-oncology-small-animals-anatomopathologic-diagnosis)

# 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

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*p. 28*

# 01

# Introduction

Specialize in Clinical Oncology in Small Animals. Anatomopathological Diagnosis with this high-level program taught by professionals with years of experience in the field. Professionals will have the latest didactic resources and the most advanced knowledge in the field in a training program that stands out for the quality of its contents and its excellent teaching staff.







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*Become one of the most demanded professionals today: Train in Clinical Oncology in Small Animals. Anatomopathological Diagnosis with this comprehensive online program”*

Clinical Oncology is a specialty based on the knowledge of tumor biology and the clinical study of cancer. In order to apply this knowledge in daily practice, it is necessary to know the general diagnostic and therapeutic approach to cancer patients. In addition to correctly staging patients, it is also essential to know how to correctly interpret anatomic pathology reports.

This course begins with the analysis of tumor biology, where aspects of cancer etiology and regulatory mechanisms will be addressed. The etiology of cancer and the epidemiological methods used in the clinical study of cancer will be discussed and the concept of translational medicine and how the study of cancer in pets can contribute to cancer research in humans will be defined.

The program will initially examine the approach to cancer patients, from the initial interview with the owner through the available diagnostic methods to treatment options.

Finally, this program will analyze the technique and interpretation of cytology, as a fundamental part of the diagnostic process of cancer. Likewise, the key points to correctly process biological samples and offer anatomopathological interpretations will be addressed in order to integrate the vision and experience of clinical veterinarians and veterinary pathologists.

As it is an online training program, students will not be constrained by fixed schedules, nor will they have to commute 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 **Postgraduate Certificate in Clinical Oncology in Small Animals.**

**Anatomopathological Diagnosis** contains the most complete and up-to-date educational 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



*A program that will enable you to work in all fields of veterinary dentistry with the competence of a high-level professional"*

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*Get a complete and adequate qualification in Clinical Oncology in Small Animals. Anatomopathological Diagnosis with this highly effective program and open new paths to your professional progress”*

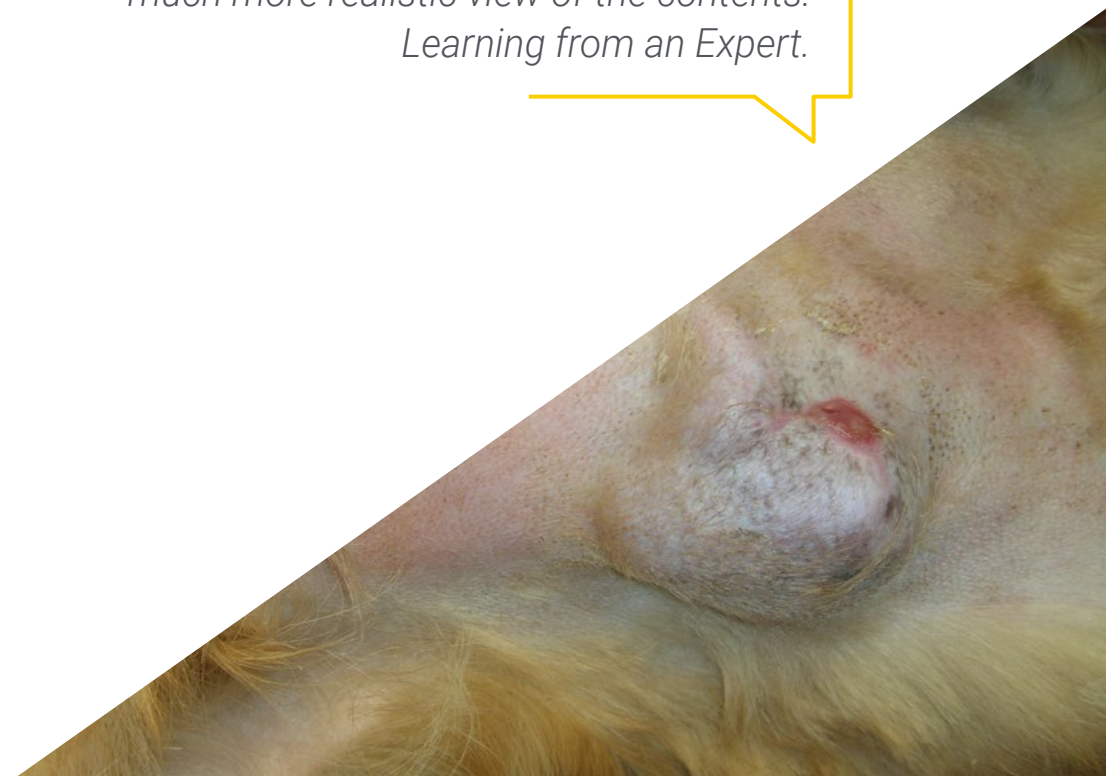
Our teaching staff is made up of professionals from different fields related to this specialty. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will put the practical knowledge derived from their own experience at the service of 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 program in Clinical Oncology in Small Animals. Anatomopathological Diagnosis. Developed by a multidisciplinary team of *e-learning* experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your 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, we will use telepractice: With the help of an innovative, interactive video system and *Learning from an Expert*, students will be able to acquire the knowledge as if they were dealing with the case they are studying in real time. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

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

*Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: Learning from an Expert.*



# 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 skills set to include new paths of success and development: this is the program for you: 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 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



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







## Specific Objectives

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- ♦ 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 to 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

03

# 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.





A close-up photograph of a pig's snout and nose, showing the texture of its skin and the shape of its nostrils. The pig is resting on a light-colored, possibly concrete, floor. The image is partially obscured by a diagonal teal graphic element that runs from the top right towards the bottom left.

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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

### 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

### Dr. 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

# 04

# Structure and Content

The contents of this program have been developed by the different experts on this course 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.





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*A comprehensive and well-structured program that will take you to the highest standards of quality and success”*

**Module 1.** Introduction to Oncology. Etiology, Biology and Epidemiology of Cancer. Approach to Cancer Patients. Anatomopathological 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

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



# 05 Methodology

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

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







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

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



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



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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

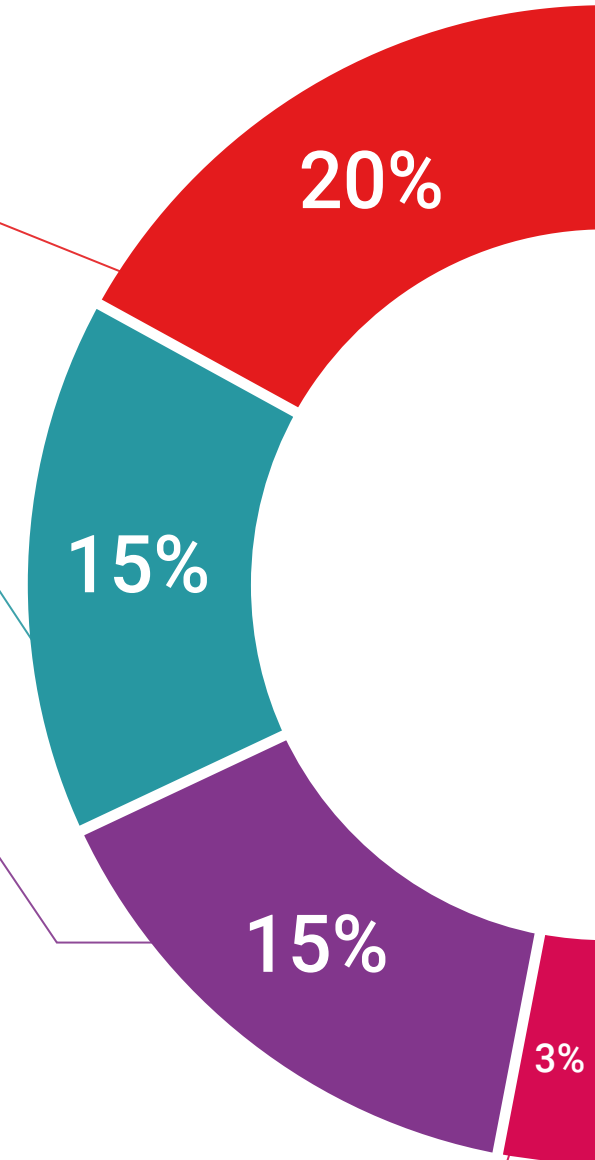
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

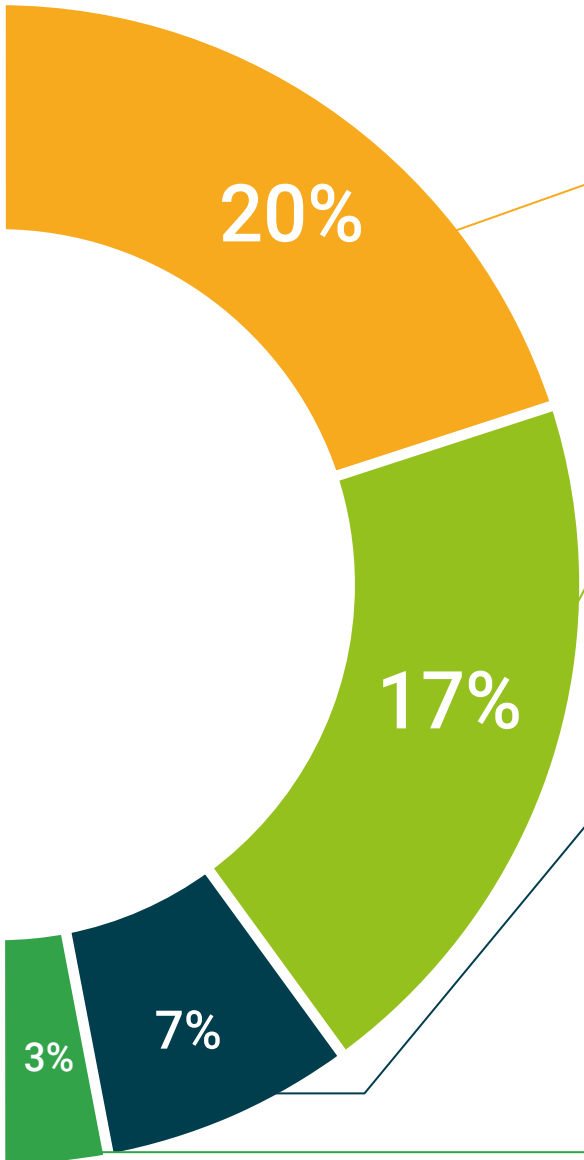
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### 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.





# 06 Certificate

This Postgraduate Certificate in Clinical Oncology in Small Animals. Anatomopathological Diagnosis guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Clinical Oncology in Small Animals. Anatomopathological Diagnosis** 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 **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in Postgraduate Certificate, and meets the requirements commonly demanded by job markets, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Clinical Oncology in Small Animals. Anatomopathological Diagnosis**  
Official Number of Hours: **150 h.**



\*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.





**Postgraduate Certificate**  
Clinical Oncology in Small Animals.  
Anatomopathologic Diagnosis

- » Modality: online
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