

# Postgraduate Certificate

## Immune-Mediated and Autoimmune Dermatoses





## Postgraduate Certificate Immune-Mediated and Autoimmune Dermatoses

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

Website: [www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/immune-mediated-autoimmune-dermatoses](http://www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/immune-mediated-autoimmune-dermatoses)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 24*

06

Certificate

---

*p. 32*

# 01

# Introduction

Immune-mediated and autoimmune diseases are relatively uncommon in daily clinical practice. However, they make up a group of pathologies of vital importance, since their early diagnosis and appropriate diagnostic approach can make a substantial difference in the quality of life of our patient, and even, in extreme cases, in the patient's own survival.

This program will address one of the most complex and exciting groups of skin diseases in this specialty where in recent years great advances have been made in terms of clarifying its etiopathogenesis, diagnostic methods or new therapeutic approaches.





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*This training is the best option you can find to specialize in Dermatology in Small Animals and make more accurate diagnoses”*

The clinical presentations of immune-mediated and autoimmune diseases are very heterogeneous, sometimes with acute pustular, erosive or ulcerative injuries, accompanied by systemic symptoms such as hyperthermia or anorexia. This conditions and limits our time frame for action, making it necessary to initiate an orderly and focused diagnostic protocol from the beginning in order to establish an adequate treatment as quickly as possible.

Determining whether patients have an immune-mediated or autoimmune disease requires a detailed anamnesis, a thorough general and dermatologic examination, diagnostic methods of immediate interpretation, such as cytologic studies, and delayed interpretation, such as histopathologic or laboratory studies.

Dermatology is possibly the most frequently encountered specialty within pet veterinary medicine in daily clinical practise. Because of this, and taking into account its importance, this Postgraduate Certificate has been developed by a highly-regarded veterinary teaching team in Veterinary Dermatology.

The combination of experience, both theoretical and practical, allows the veterinary professional to develop, first hand, specialized knowledge to carry out a good diagnosis and treatment of dermatological diseases from the theoretical point of view, with the latest developments and scientific advances and from the extensive practical experience of all teachers. The combination of a great team of interrelated teachers is what makes this Postgraduate Certificate unique among all those offered in similar courses.

The topics developed in this Postgraduate Certificate address, in-depth, the most important small animal dermatoses, including dogs, cats and other non-traditional pets.

With this Postgraduate Certificate veterinary professionals acquire advanced knowledge of Veterinary Dermatology for daily clinical practice. The study system applied by this university provides a solid foundation in the specialized knowledge of the Physiopathology of the skin and latest generation dermatological therapeutics.

As it is an online Postgraduate Certificate, students are not conditioned by fixed schedules, nor do they need to travel to another location. All the content can be accessed at any time of the day, so you can balance your professional or personal life with your academic one.

This **Postgraduate Certificate in Immune-Mediated and Autoimmune Dermatoses** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of case studies presented by Small Animal Dermatology experts
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Breakthroughs in Dermatology in Small Animals
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in Dermatology in Small Animals
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Do not miss the opportunity to take this Postgraduate Certificate with TECH. It's the perfect opportunity to advance your career and stand out in an industry with a high demand for professionals"*



*This Postgraduate Certificate is the best investment you can make when choosing a refresher programme to update your existing knowledge of Veterinary Dermatology"*

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Dermatology in Small Animals and with extensive experience.

*This program comes with the best educational material, providing you with a contextual approach that will facilitate your learning.*

*This 100% online Postgraduate Certificate will allow you to balance your studies with your professional work while increasing your knowledge in this field.*



# 02 Objectives

This program in Immune-Mediated and Autoimmune Dermatoses is aimed at facilitating veterinary professionals' performance with the latest advances and most innovative treatments in the sector.





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*Learn about the latest advances in the field from the comfort of your home, thanks to the online format on which this program is based"*



## General Objectives

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- Examine autoimmune or immune-mediated diseases
- Analyze the injury patterns associated with cutaneous autoimmune or immunemediated diseases
- Determine an appropriate methodology for the diagnosis of immune-mediated and autoimmune skin diseases
- Develop expertise based on new findings on cutaneous autoimmune or immune-mediated diseases



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





## Specific Objectives

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- ◆ Develop specialized knowledge of the characteristic clinical signs of each disease, the skin lesions, their distribution and how they evolve
- ◆ Analyze the pathogenic mechanism of each process
- ◆ Establish a list of differential diagnoses for each disease
- ◆ Select the most appropriate or conclusive diagnostic tests in each case
- ◆ Determine the drugs for therapy and follow-up protocols
- ◆ Evaluate risk-benefit, in case of surgical options, adapted to each patient



03

# Course Management

This program's teaching staff includes leading experts in research and health, who bring their work experience to this course. They are world-renowned veterinarians from different countries with proven theoretical and practical professional experience.



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*Our team of teachers, with expertise in dermatology in small animals, will help you reach success in your profession"*

## International Guest Director

Dr. Domenico Santoro is an eminence in the field of **Veterinary Dermatology**. He is the **only specialist in his field to hold dual certification**, one granted by the American College of Veterinary Microbiologists (ACVM) in Bacteriology/Micology and Immunology, and the other by the Board of the American College of Veterinary Dermatology.

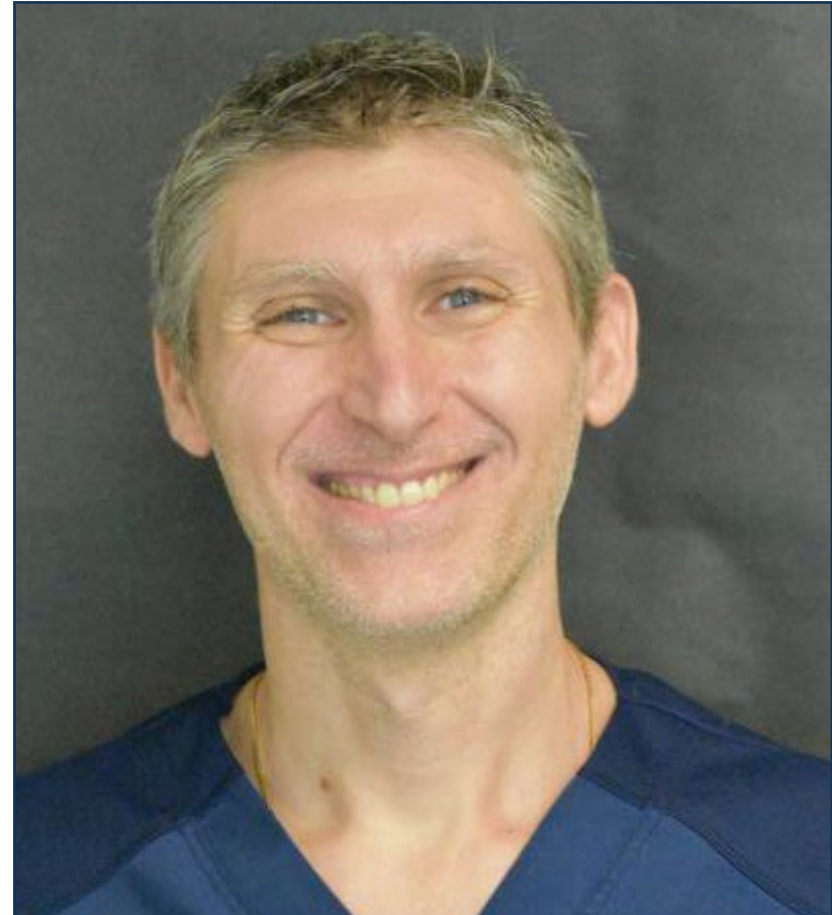
His career has been marked by the study of host-microbe interactions that occur in **Canine Atopic Dermatitis**. As a result of these analyses, he has developed the **evaluation of skin defense peptides**, quantifying at the molecular and protein level the expression of these products in the skin of healthy and affected dogs.

Santoro is a highly respected leader in the scientific community whose main commitment is to **continuous innovation** to promote excellence in veterinary dermatology. In the course of his clinical work, he has deepened his knowledge of the **cutaneous immune response** of dogs with Leishmaniasis, aerobic bacteria and other pathologies caused by allergens. He has also mastered cutaneous cryotherapy and laser skin surgery in pets.

In his career he also stands out for being **one of the three main researchers** in charge of the direction of the Laboratory of Comparative Dermatology of the University of Florida. From this **study center he promotes the “One Health” perspective** that investigates the development of simultaneous defenses between dogs and humans for dermatological diseases.

At the same time, he has been part of animal research departments at the **prestigious North American universities** of North Carolina and Illinois. Through his experiences, he became one of the founding members of the **International Committee for Allergic Diseases in Animals (ICADA)**. As a result, he has several dozen scientific publications in some of the most prestigious veterinary journals.

Position: Principal Investigator in the Laboratory of Comparative Dermatology at the University of Florida.



## Dr. Santoro, Domenico

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- Veterinarian at the University of Florida Veterinary Hospital
- Assistant Professor at the University of Florida College of Veterinary Medicine
- Doctor of Veterinary Science from the University of Illinois at Urbana-Campaign
- Residency Veterinary Residency at North Carolina State University
- Veterinary Degree at the University of Naples "Federico II"
- Member of: American College of Veterinary Microbiologists, American College of Veterinary Dermatology, European College of Veterinary Dermatology

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Machicote Goth, Gustavo

- Clinical Veterinarian Dermatologist at Clínica Vilanova
- Head of the Dermatology Reference Service DERMASET
- Member and former Secretary of the Scientific Committee of GEDA (Dermatology Group of AVEPA)
- Dermatology Certificate by the ESAVS in Vienna
- Master in Small Animal Oncology by AEVA, Miguel de Cervantes University





# 04

# Structure and Content

The structure of this content has been designed by the best professionals in the Small Animal Dermatology sector, with extensive experience and recognized prestige in the profession, backed by the volume of reviewed, studied, and diagnosed cases, and with extensive knowledge of new technologies applied to veterinary medicine.



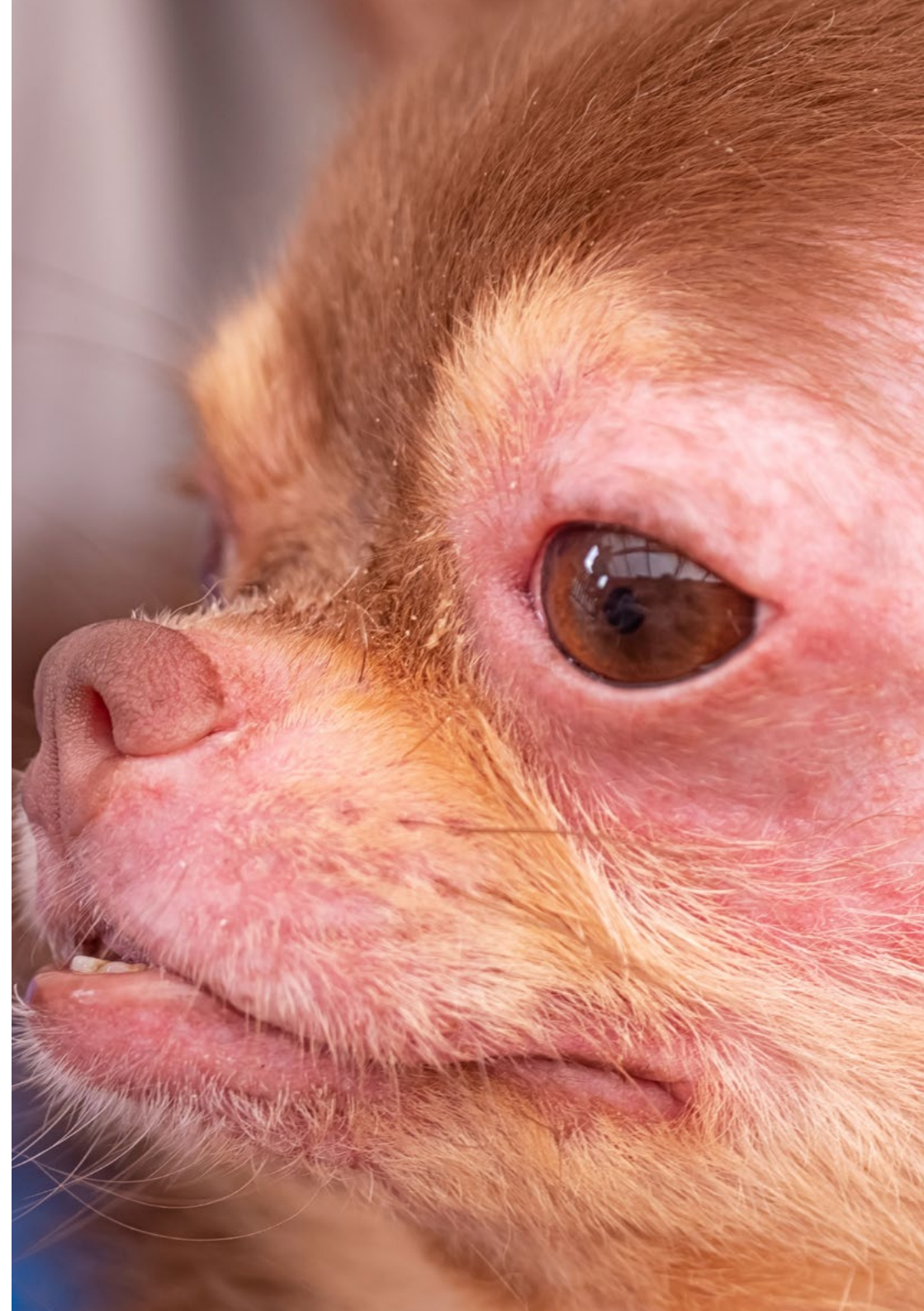


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*This Postgraduate Certificate contains the most complete and up-to-date scientific program on the market”*

## Module 1. Immune-Mediated and Autoimmune Dermatoses

- 1.1 Aetiopathogenesis of Autoimmune Diseases
  - 1.1.1. Types of Immunity
  - 1.1.2. Development Mechanisms of Autoimmune Diseases
- 1.2 Diagnosis of Autoimmune and Immune-Mediated Diseases
  - 1.2.1. Laboratory Methods
  - 1.2.2. Histopathological Findings
- 1.3 Therapy of Autoimmune and Immune-Mediated Diseases
  - 1.3.1. Phases of Treatment for Immune-Mediated and Autoimmune Diseases
    - 1.3.1.1. Induction Phase
    - 1.3.1.2. Transition Phase
    - 1.3.1.3. Maintenance Phase
    - 1.3.1.4. Extinction Phase
  - 1.3.2. Immunosuppressive Drugs
    - 1.3.2.1. Azathioprine
    - 1.3.2.2. Chlorambucil
    - 1.3.2.3. Mycophenolate Mofetil
    - 1.3.2.4. Cyclophosphamide
    - 1.3.2.5. Oclacitinib
    - 1.3.2.6. Tetracycline-Nicotinamide/Doxycycline
    - 1.3.2.7. Glucocorticoids
- 1.4 Autoimmune Diseases
  - 1.4.1. Pemphigus Complex
    - 1.4.1.2. Etiopathogenesis
    - 1.4.1.3. Pemphigus Complex
      - 1.4.1.3.1. Pemphigus Foliaceus
      - 1.4.1.3.2. Pemphigus Erythematosus
      - 1.4.1.3.3. Pemphigus vulgaris





- 1.4.2. Lupus Erythematosus
  - 1.4.2.1. Systemic Lupus Erythematosus
    - 1.4.2.1.1. Subacute Cutaneous Lupus Erythematosus (SCLE)
      - 1.4.2.1.1.1. Vesicular Cutaneous Lupus Erythematosus (VCLE)
    - 1.4.2.1.2. Chronic Cutaneous Lupus Erythematosus (CCLE)
      - 1.4.2.1.2.1. Discoid Lupus Erythematosus
        - 1.4.2.1.2.1.1. Discoid Lupus Erythematosus with Facial Distribution (LEFD)
        - 1.4.2.1.2.1.2. Discoid Lupus Erythematosus with General Distribution (LEGD)
      - 1.4.2.1.2.2. Mucocutaneous Lupus Erythematosus (MCLE)
      - 1.4.2.1.2.3. Exfoliative Cutaneous Lupus Erythematosus (ECLE)
  - 1.4.2.2. Systemic Lupus Erythematosus
- 1.4.3. Subepidermal Bullous or Blistering Diseases (AISBD)
  - 1.4.3.1. Mucous Membrane Pemphigoid (MMP)
  - 1.4.3.2. Bullous Pemphigoid (BP)
  - 1.4.3.3. Acquired Epidermolysis Bullosa (AEB)
- 1.4.4. Pigmented Autoimmune Diseases
  - 1.4.4.1. Vitiligo
  - 1.4.4.2. Uveodermatologic Syndrome
- 1.5 Immune-Mediated Diseases I
  - 1.5.1. Adverse Reactions to Medications
    - 1.5.1.1. Etiopathogenesis
    - 1.5.1.2. Clinical Findings
    - 1.5.1.3. Diagnosis
    - 1.5.1.4. Treatment
- 1.6 Immune-Mediated Diseases II
  - 1.6.1. Erythema Multiform
    - 1.6.1.1. Etiopathogenesis
    - 1.6.1.2. Clinical Findings
    - 1.6.1.3. Diagnosis
    - 1.6.1.4. Treatment

- 1.7 Immune-Mediated Diseases III
  - 1.7.1. Steven Johnson Syndrome
    - 1.7.1.1. Etiopathogenesis
    - 1.7.1.2. Clinical Findings
    - 1.7.1.3. Diagnosis
    - 1.7.1.4. Treatment
  - 1.7.2. Toxic Epidermal Necrolysis (TEN)
    - 1.7.2.1. Etiopathogenesis
    - 1.7.2.2. Clinical Findings
    - 1.7.2.3. Diagnosis
    - 1.7.2.4. Treatment
- 1.8 Immune-Mediated Diseases IV
  - 1.8.1. Juvenile Canine Cellulitis
    - 1.8.1.1. Etiopathogenesis
    - 1.8.1.2. Clinical Findings
    - 1.8.1.3. Diagnosis
    - 1.8.1.4. Treatment
  - 1.8.2. Feline Plasma Cell Pododermatitis
    - 1.8.2.1. Etiopathogenesis
    - 1.8.2.2. Clinical Findings
    - 1.8.2.3. Diagnosis
    - 1.8.2.4. Treatment
- 1.9 Immune-Mediated Diseases V
  - 1.9.1. Immune-Mediated Canine Fistulas
    - 1.9.1.1. Canine Perianal Fistulas
      - 1.9.1.1.1. Etiopathogenesis
      - 1.9.1.1.2. Clinical Findings
      - 1.9.1.1.3. Diagnosis
      - 1.9.1.1.4. Treatment





- 1.9.1.2. Canine Tassal Fistulas
  - 1.9.1.2.1. Etiopathogenesis
  - 1.9.1.2.2. Clinical Findings
  - 1.9.1.2.3. Diagnosis
  - 1.9.1.2.4. Treatment
- 1.10 Immune-Mediated Diseases VI
  - 1.10.1. Vascular Diseases
    - 1.10.1.1. Etiopathogenesis
    - 1.10.1.2. Clinical Presentations
      - 1.10.1.2.1. Proliferative Thrombovascular Necrosis of the Ear
      - 1.10.1.2.2. Post-vaccinal Ischemia Dermatopathy
      - 1.10.1.2.3. Proliferative Nasal Arteritis
      - 1.10.1.2.4. Familial Vasculopathy
    - 1.10.1.3. Diagnosis
    - 1.10.1.4. Treatment
  - 1.10.2. Dermatomyositis.
    - 1.10.2.1. Etiopathogenesis
    - 1.10.2.2. Clinical Findings
    - 1.10.2.3. Diagnosis
    - 1.10.2.4. Treatment



*Achieve professional success with this high-level training provided by prestigious professionals with extensive experience in the sector"*

# 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. 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.

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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

The Postgraduate Certificate in Immune-Mediated and Autoimmune Dermatoses 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 Immune-Mediated and Autoimmune Dermatoses** contains the most complete and up-to-date scientific 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 the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Immune-Mediated and Autoimmune Dermatoses**  
Official N° 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 Immune-Mediated and Autoimmune Dermatoses

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